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NEWS	1		Web Page URLs for STN Seminar Schedule - N. America
NEWS	2		"Ask CAS" for self-help around the clock
NEWS	3	DEC 18	CA/CAPplus pre-1967 chemical substance index entries enhanced with preparation role
NEWS	4	DEC 18	CA/CAPplus patent kind codes updated
NEWS	5	DEC 18	MARPAT to CA/CAPplus accession number crossover limit increased to 50,000
NEWS	6	DEC 18	MEDLINE updated in preparation for 2007 reload
NEWS	7	DEC 27	CA/CAPplus enhanced with more pre-1907 records
NEWS	8	JAN 08	CHEMLIST enhanced with New Zealand Inventory of Chemicals
NEWS	9	JAN 16	CA/CAPplus Company Name Thesaurus enhanced and reloaded
NEWS	10	JAN 16	IPC version 2007.01 thesaurus available on STN
NEWS	11	JAN 16	WPIDS/WPINDEX/WPIX enhanced with IPC 8 reclassification data
NEWS	12	JAN 22	CA/CAPplus updated with revised CAS roles
NEWS	13	JAN 22	CA/CAPplus enhanced with patent applications from India
NEWS	14	JAN 29	PHAR reloaded with new search and display fields
NEWS	15	JAN 29	CAS Registry Number crossover limit increased to 300,000 in multiple databases
NEWS	16	FEB 15	PATDPASPC enhanced with Drug Approval numbers
NEWS	17	FEB 15	RUSSIAPAT enhanced with pre-1994 records
NEWS	18	FEB 23	KOREAPAT enhanced with IPC 8 features and functionality
NEWS	19	FEB 26	MEDLINE reloaded with enhancements
NEWS	20	FEB 26	EMBASE enhanced with Clinical Trial Number field
NEWS	21	FEB 26	TOXCENTER enhanced with reloaded MEDLINE
NEWS	22	FEB 26	IFICDB/IFIPAT/IFIUDB reloaded with enhancements
NEWS	23	FEB 26	CAS Registry Number crossover limit increased from 10,000 to 300,000 in multiple databases
NEWS	24	MAR 15	WPIDS/WPIX enhanced with new FRAGHITSTR display format
NEWS	25	MAR 16	CASREACT coverage extended
NEWS	26	MAR 20	MARPAT now updated daily
NEWS	27	MAR 22	LWPI reloaded
NEWS	EXPRESS		NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.
NEWS	HOURS		STN Operating Hours Plus Help Desk Availability
NEWS	LOGIN		Welcome Banner and News Items
NEWS	IPC8		For general information regarding STN implementation of IPC 8
NEWS	X25		X.25 communication option no longer available

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Enter NEWS followed by the item number or name to see news on that specific topic.

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* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 16:33:18 ON 22 MAR 2007

=> fil reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 16:33:25 ON 22 MAR 2007

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STRUCTURE FILE UPDATES: 21 MAR 2007 HIGHEST RN 927866-99-7

DICTIONARY FILE UPDATES: 21 MAR 2007 HIGHEST RN 927866-99-7

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TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

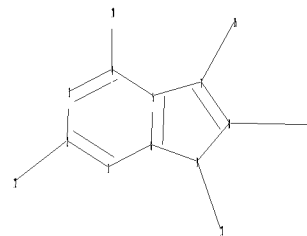
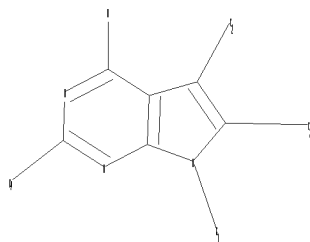
REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=>

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```
chain nodes :
12 13 15 16
ring nodes :
1 2 3 4 5 6 7 8 9 10
chain bonds :
2-12 4-10 7-15 8-16 9-13
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 8-9
exact/norm bonds :
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exact bonds :
5-7 7-8
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6
isolated ring systems :
containing 1 :
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G1:C,H,Cy

G2:H,Cl,Br,F,I,Cy,Ak

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
12:Atom 13:CLASS 15:CLASS 16:CLASS

L1 STRUCTURE UPLOADED

=> s l1 sam

SAMPLE SEARCH INITIATED 16:33:41 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 792 TO ITERATE

10816329.trn

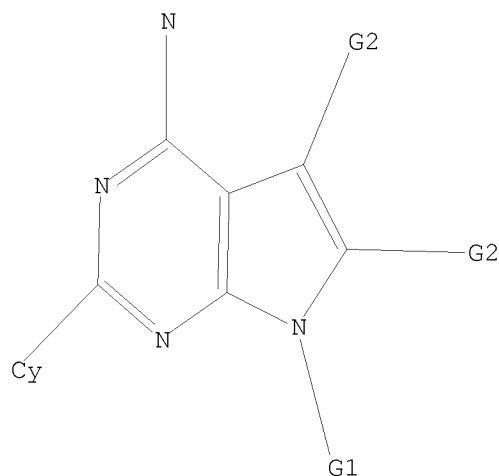
100.0% PROCESSED 792 ITERATIONS
SEARCH TIME: 00.00.01

15 ANSWERS

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 14152 TO 17528
PROJECTED ANSWERS: 68 TO 532

L2 15 SEA SSS SAM L1

=> d l1
L1 HAS NO ANSWERS
L1 STR



G1 C, H, Cy
G2 H, Cl, Br, F, I, Cy, Ak

Structure attributes must be viewed using STN Express query preparation.

=> s l1 full
FULL SEARCH INITIATED 16:33:53 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 16439 TO ITERATE

100.0% PROCESSED 16439 ITERATIONS
SEARCH TIME: 00.00.01

284 ANSWERS

L3 284 SEA SSS FUL L1

=> fil capl
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
172.10	172.31

FULL ESTIMATED COST

FILE 'CAPLUS' ENTERED AT 16:33:58 ON 22 MAR 2007
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FILE COVERS 1907 - 22 Mar 2007 VOL 146 ISS 13
FILE LAST UPDATED: 21 Mar 2007 (20070321/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

<http://www.cas.org/infopolicy.html>

=> s 13

L4 31 L3

=> s 14 not (2007/so or 2006/so or 2005/so)

151426 2007/SO

811675 2006/SO

872221 2005/SO

L5 31 L4 NOT (2007/SO OR 2006/SO OR 2005/SO)

=> s 15 ibib hitstr abs 1-31

MISSING OPERATOR L5 IBIB

The search profile that was entered contains terms or nested terms that are not separated by a logical operator.

=> d 15 ibib hitstr abs 1-31

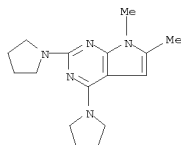
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L5 ANSWER 1 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2007:199424 CAPLUS
DOCUMENT NUMBER: 146:258989
TITLE: Composition comprising a benzodiazepine agonist and a benzodiazepine antagonist
INVENTOR(S): Mainville, Pierre
PATENT ASSIGNEE(S): Can.
SOURCE: U.S. Pat. Appl. Publ., 5pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2007043032	A1	20070222	US 2005-208506	20050822
CA 2556163	A1	20070222	CA 2006-2556163	20060815

PRIORITY APPLN. INFO.: US 2005-208506 A 20050822

IT 157013-32-6, U 89843A
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(composition comprising a benzodiazepine agonist and a benzodiazepine antagonist)
RN 157013-32-6 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 6,7-dimethyl-2,4-di-1-pyrrolidinyl- (9CI)
(CA INDEX NAME)



AB This invention relates to a composition comprising a benzodiazepine agonist, a benzodiazepine antagonist, and a pharmaceutical acceptable carrier in an effective ratio so as to preserve the therapeutic effects of the benzodiazepine agonist while modulating the side effects of the benzodiazepine antagonist. For example, 44 yr old female suffering from a chronic reflex sympathetic dystrophy type 1 of her right knee with severe anxiety was treated simultaneously with 5 mg of midazolam i.v. and 500 µg of flumazenyl i.v.. At this point, she rated her pain at 5/10. Less than 15 min after treatment, her pain went down to 0/10 without any sedative effects.

L5 ANSWER 2 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

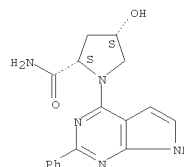
L5 ANSWER 2 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:952415 CAPLUS
DOCUMENT NUMBER: 145:342443
TITLE: Compositions comprising NEP inhibitors, endogenous endothelin inhibitors and diuretics for treatment of cardiovascular disease
INVENTOR(S): Straub, Matthias; Witte, Klaus; Ziegler, Dieter; Fischer, Yvan
PATENT ASSIGNEE(S): Solvay Pharmaceuticals GmbH, Germany
SOURCE: U.S. Pat. Appl. Publ., 15pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2006205625	A1	20060914	US 2006-356088	20060217

PRIORITY APPLN. INFO.: US 2005-653956P P 20050218

OTHER SOURCE(S): MARPAT 145:342443
IT 343632-54-2
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compsns. comprising NEP inhibitors, endogenous endothelin inhibitors and diuretics for treatment of cardiovascular disease)
RN 343632-54-2 CAPLUS
CN 2-Pyrrolidinecarboxamide, 4-hydroxy-1-(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-, (2S,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



AB A novel combination therapy for cardiovascular diseases or conditions, including administering a synergistic combination of at least one inhibitor of neutral endopeptidase, at least one inhibitor of the endogenous endothelin producing system and at least one diuretic, preferably a thiazide diuretic or an adenosine A1 antagonist. For example, capsule was formulated containing daglutril calcium 250 mg and hydrochlorothiazide 50 mg.

L5 ANSWER 3 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:847629 CAPLUS
DOCUMENT NUMBER: 145:278270
TITLE: Pharmaceutical compositions comprising inhibitors of neutral endopeptidase and inhibitors of the endogenous endothelin and diuretics for the treatment of cardiovascular diseases
INVENTOR(S): Witte, Klaus; Ziegler, Dieter; Straub, Matthias; Fischer, Yvan
PATENT ASSIGNEE(S): Solvay Pharmaceuticals GmbH, Germany
SOURCE: PCT Int. Appl., 39pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006087371	A1	20060824	WO 2006-EP60057	20060217

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

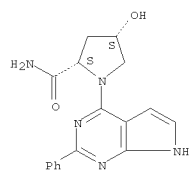
PRIORITY APPLN. INFO.: EP 2005-101235 A 20050218

OTHER SOURCE(S): MARPAT 145:278270
IT 343632-54-2D, derivs.
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pharmaceutical compsns. comprising inhibitors of neutral endopeptidase and inhibitors of the endogenous endothelin and diuretics for the treatment of cardiovascular diseases)
RN 343632-54-2 CAPLUS
CN 2-Pyrrolidinecarboxamide, 4-hydroxy-1-(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-, (2S,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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L5 ANSWER 3 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



AB A novel combination therapy is described for cardiovascular diseases or conditions, by administering a synergistic combination of at least one inhibitor of neutral endopeptidase, at least one inhibitor of the endogenous endothelin producing system and at least one diuretic, preferably a thiazide diuretic or an adenosine A1 antagonist. For example, capsules contained daglutril calcium, and hydrochlorothiazide, corn starch, lactose and Et acetate.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L5 ANSWER 4 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:316276 CAPLUS

DOCUMENT NUMBER: 142:392424

TITLE: Preparation of aminopyrrolopyrimidines as adenosine A1 receptor antagonists.

INVENTOR(S): Castelhana, Arlindo L.; McKibben, Bryan; Witter, David

J.

PATENT ASSIGNEE(S): OSI Pharmaceuticals, Inc., USA

SOURCE: U.S., 66 pp., Cont.-in-part of Appl. No. PCT/US99/12135.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6878716	B1	20050412	US 1999-454074	19991202
WO 9962518	A1	19991209	WO 1999-US12135	19990601
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CA 2393179	A1	20010607	CA 2000-2393179	20001201
WO 2001039777	A1	20010607	WO 2000-US32702	20001201
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EP 1246623	A1	20021009	EP 2000-988011	20001201
EP 1246623	B1	20060809		
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JP 2003519102	T	20030617	JP 2001-541509	20001201
AU 784878	B2	20060713	AU 2001-24270	20001201
AT 335489	T	20060915	AT 2000-988011	20001201
EP 1731520	A1	20061213	EP 2006-16543	20001201
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ZA 2002004153	A	20040715	ZA 2002-4153	20020524
PRIORITY APPLN. INFO.:			US 1998-87702P	P 19980602
			US 1999-123216P	P 19990308

L5 ANSWER 4 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

US 1999-126527P P 19990326

WO 1999-US12135 A2 19990601

US 1999-454074 A 19991202

US 1999-454075 A 19991202

US 1999-454254 A 19991202

EP 2000-988011 A3 20001201

WO 2000-US32702 W 20001201

OTHER SOURCE(S): MARPAT 142:392424

IT 251946-53-9P

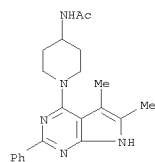
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of aminopyrrolopyrimidines as adenosine A1 receptor antagonists)

RN 251946-53-9 CAPLUS

CN Acetamide,

N-[1-(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-4-piperidinyl]- (9CI) (CA INDEX NAME)



IT 343631-98-1

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

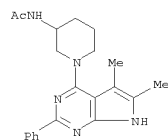
(preparation of aminopyrrolopyrimidines as adenosine A1 receptor antagonists)

RN 343631-98-1 CAPLUS

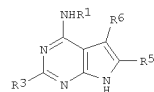
CN Acetamide,

N-[1-(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-3-piperidinyl]- (9CI) (CA INDEX NAME)

L5 ANSWER 4 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



GI



I

AB Title compds. [I; R1 = trans-4-hydroxycyclohexyl, 2-methylaminocarbonylaminoethyl, acetylaminomethyl, methylaminocarbonylaminoethyl; R3 = (substituted) Ph, pyrrolyl, thienyl, furyl, thiazolyl, imidazolyl, pyrazolyl, pyrazinyl, purinyl, quinazolinyl, etc.; R5 = H, (substituted) alkyl, amino, Ph, pyrrolyl, furyl, thienyl, imidazolyl, benzoxazolyl, benzothiazolyl, triazolyl, tetrazolyl, pyrazolyl, pyridinyl, pyrazinyl, pyridazinyl, pyrimidinyl, naphthyl, quinolyl, indolyl, etc.; R6 = H, (substituted) alkyl, cycloalkyl], were prepared Thus,

4-chloro-5,6-dimethyl-2-phenyl-7H-pyrrolo[2,3-d]pyrimidine and trans-4-hydroxycyclohexylamine were heated in Me2SO at 130° for 5 h to give 75% 4-(4-trans-hydroxycyclohexyl)amino-6-methyl-2-phenyl-7H-pyrrolo[2,3-d]pyrimidine. I showed A1 receptor binding with K1 = 2.3-75000 nM.

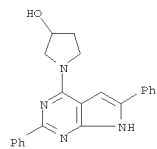
REFERENCE COUNT: 120 THERE ARE 120 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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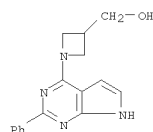
L5 ANSWER 5 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:88297 CAPLUS
DOCUMENT NUMBER: 140:146159
TITLE: Preparation and use of substituted
pyrrolo[2,3-d]pyrimidines as selective adenosine A3
receptor antagonists
INVENTOR(S): Castelhana, Arlindo L.; McKibben, Bryan; Witter,
David
PATENT ASSIGNEE(S): OSI Pharmaceuticals, Inc., USA
SOURCE: U.S., 71 pp., Cont.-in-part of Appl. No.
PCT/US99/12135.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

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CA 2393179	A1	20010607	CA 2000-2393179	20001201
WO 2001039777	A1	20010607	WO 2000-US32702	20001201
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EP 1246623	B1	20060809		
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JP 2003519102	T	20030617	JP 2001-541509	20001201
AU 784878	B2	20060713	AU 2001-24270	20001201
AT 335489	T	20060915	AT 2000-988011	20001201
EP 1731520	A1	20061213	EP 2006-16543	20001201
R:	AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE, TR, AL, LT, LV, MK, RO, SI			
PRIORITY APPLN. INFO.:			US 1998-87702P	P 19980602
			US 1999-123216P	P 19990308

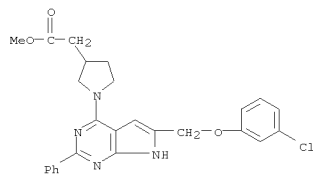
L5 ANSWER 5 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 343632-42-8 CAPLUS
CN 3-Aretidinemethanol, 1-(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)- (9CI)
(CA INDEX NAME)



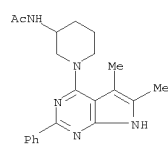
RN 343632-47-3 CAPLUS
CN 3-Pyrrolidineacetic acid, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, methyl ester (9CI) (CA INDEX NAME)



RN 343632-48-4 CAPLUS
CN 3-Pyrrolidineacetamide, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]- (9CI) (CA INDEX NAME)

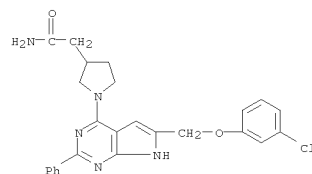
L5 ANSWER 5 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
US 1999-126527P P 19990326
WO 1999-US12135 A2 19990601
US 1999-454074 A 19991202
US 1999-454075 A 19991202
US 1999-454254 A 19991202
EP 2000-988011 A3 20001201
WO 2000-US32702 W 20001201

OTHER SOURCE(S): MARPAT 140:146159
IT 343631-98-1P 343632-34-8P 343632-42-8P
343632-47-3P 343632-48-4P 343632-49-5P
343632-65-5P 343632-66-6P 343632-74-6P
343632-75-7P 343632-84-8P 343632-85-9P
343632-86-0P 343632-87-1P 343632-88-2P
343632-89-3P 343632-90-6P 343969-98-2P
653600-35-2P 653600-36-3P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation and use of substituted 7H-pyrrolo[2,3-d]pyrimidines as selective adenosine A3 receptor antagonists)
RN 343631-98-1 CAPLUS
CN Acetamide,
N-[1-(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-3-piperidinyl]- (9CI) (CA INDEX NAME)

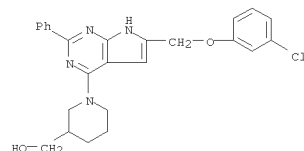


RN 343632-34-8 CAPLUS
CN 3-Pyrrolidineacetic acid, 1-(2,6-diphenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)- (9CI)
(CA INDEX NAME)

L5 ANSWER 5 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

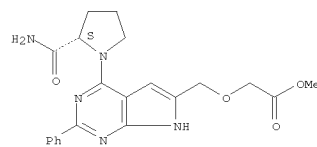


RN 343632-49-5 CAPLUS
CN 3-Piperidinemethanol, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]- (9CI) (CA INDEX NAME)



RN 343632-65-5 CAPLUS
CN Acetic acid, [[4-[(2S)-2-(aminocarbonyl)-1-pyrrolidinyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-6-yl]methoxy]-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

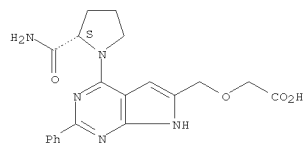


RN 343632-66-6 CAPLUS
CN Acetic acid, [[4-[(2S)-2-(aminocarbonyl)-1-pyrrolidinyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-6-yl]methoxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

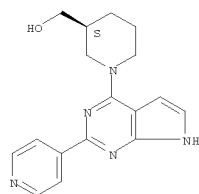
10816329.trn

L5 ANSWER 5 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 343632-74-6 CAPLUS
CN 3-Piperidinemethanol,
1-[2-(4-pyridinyl)-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-
, (3S)- (9CI) (CA INDEX NAME)

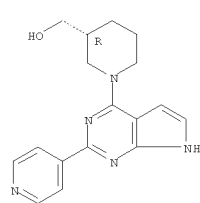
Absolute stereochemistry.



RN 343632-75-7 CAPLUS
CN 3-Piperidinemethanol,
1-[2-(4-pyridinyl)-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-
, (3R)- (9CI) (CA INDEX NAME)

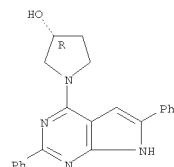
Absolute stereochemistry.

L5 ANSWER 5 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 343632-84-8 CAPLUS
CN 3-Pyrrolidinol, 1-(2,6-diphenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-, (3R)-
(9CI) (CA INDEX NAME)

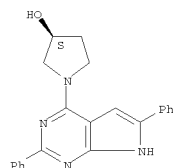
Absolute stereochemistry.



RN 343632-85-9 CAPLUS
CN 3-Pyrrolidinol, 1-(2,6-diphenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-, (3S)-
(9CI) (CA INDEX NAME)

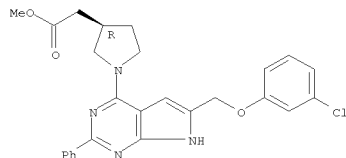
Absolute stereochemistry.

L5 ANSWER 5 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



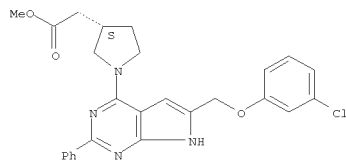
RN 343632-86-0 CAPLUS
CN 3-Pyrrolidineacetic acid, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-
pyrrolo[2,3-d]pyrimidin-4-yl]-, methyl ester, (3R)- (9CI) (CA INDEX
NAME)

Absolute stereochemistry.



RN 343632-87-1 CAPLUS
CN 3-Pyrrolidineacetamide, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-
pyrrolo[2,3-d]pyrimidin-4-yl]-, methyl ester, (3S)- (9CI) (CA INDEX
NAME)

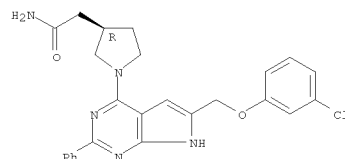
Absolute stereochemistry.



RN 343632-88-2 CAPLUS
CN 3-Pyrrolidineacetamide, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-
pyrrolo[2,3-d]pyrimidin-4-yl]-, (3R)- (9CI) (CA INDEX NAME)

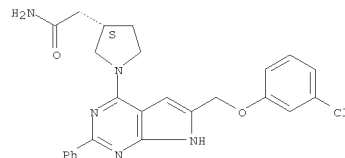
L5 ANSWER 5 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

Absolute stereochemistry.



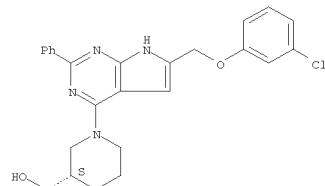
RN 343632-89-3 CAPLUS
CN 3-Pyrrolidineacetamide, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-
pyrrolo[2,3-d]pyrimidin-4-yl]-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 343632-90-6 CAPLUS
CN 3-Piperidinemethanol, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-
pyrrolo[2,3-d]pyrimidin-4-yl]-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

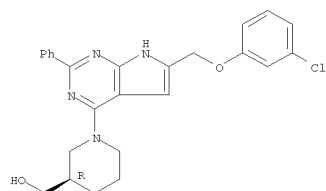


RN 343969-98-2 CAPLUS
CN 3-Piperidinemethanol, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-
pyrrolo[2,3-d]pyrimidin-4-yl]-, (3R)- (9CI) (CA INDEX NAME)

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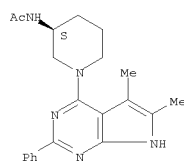
L5 ANSWER 5 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
pyrrolo[2,3-d]pyrimidin-4-yl]-, (3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 653600-35-2 CAPLUS
CN Acetamide, N-[(3S)-1-(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-3-piperidinyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

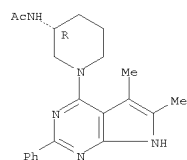


RN 653600-36-3 CAPLUS
CN Acetamide, N-[(3R)-1-(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-3-piperidinyl]- (9CI) (CA INDEX NAME)

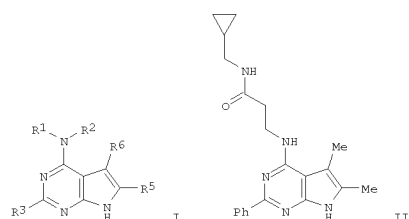
Absolute stereochemistry.

L5 ANSWER 5 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
A3 adenosine receptors in a subject.
REFERENCE COUNT: 128 THERE ARE 128 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L5 ANSWER 5 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

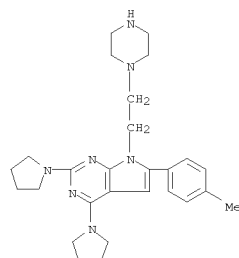


GI



AB The title compds. [I; R1 = H and R2 = cyclopropylmethylaminocarbonylethyl, cis-3-hydroxycyclopentyl, acetamidobutyl, etc.; or NR1R2 = 3-acetamidopiperadino, 3-hydroxypyrrolidino, 3-methoxycarbonylmethylpyrrolidino, etc.; R3 = (un)substituted cycloalkyl, aryl; R5 = H, alkyl, aryl; R6 = H, alkyl, cycloalkyl] which specifically inhibit the adenosine A3 receptor and are useful for treating a disease associated with A3 adenosine receptor, were prepared. Thus, 4-chloro-5,6-dimethyl-2-phenyl-7H-pyrrolo[2,3-d]pyrimidine was reacted with 4-trans-hydroxycyclohexylamine in DMSO at 130°C for 5 h to yield I [R1 = H; R2 = trans-4-hydroxycyclohexyl; R3 = Ph; R5, R6 = Me] in 75% yield after purification which showed Ki of 13.9 nM against adenosine receptor A1 binding. Some of the compds. I such as II exhibited at least 10 times more selective binding to adenosine receptor A3 than other receptor subtype. Claimed uses of I includes administration of a systemic formulation (i.e. ophthalmic) for the treatment of a disease associated with

L5 ANSWER 6 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:726750 CAPLUS
DOCUMENT NUMBER: 139:333072
TITLE: Identification and prediction of promiscuous aggregating inhibitors among known drugs
AUTHOR(S): Seidler, James; McGovern, Susan L.; Doman, Thompson N.; Shoichet, Brian K.
CORPORATE SOURCE: Department of Molecular Pharmacology and Biological Chemistry, Northwestern University, Chicago, IL, 60611, USA
SOURCE: Journal of Medicinal Chemistry (2003), 46(21), 4477-4486
CODEN: JMCMAR; ISSN: 0022-2623
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 157012-89-0
RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); PEP (Physical, engineering or chemical process); PYP (Physical process); BIOL (Biological study); PROC (Process)
(identification and prediction of promiscuous aggregating enzyme inhibitors among known drugs)
RN 157012-89-0 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 6-(4-methylphenyl)-7-[2-(1-piperazinyl)ethyl]-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)



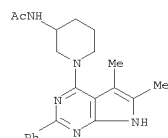
AB Some small mols., often hits from screening, form aggregates in solution that inhibit many enzymes. In contrast, drugs are thought to act specifically. To investigate this assumption, 50 unrelated drugs were tested for promiscuous inhibition via aggregation. Each drug was tested against three unrelated model enzymes: β -lactamase, chymotrypsin, and malate dehydrogenase, none of which are considered targets of these drugs. To be judged promiscuous, the drugs had to inhibit all three enzymes, do so in a

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L5 ANSWER 6 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
time-dependent manner, be sensitive to detergent and to enzyme concn.,
and
43 form particles detectable by light scattering. Of the 50 drugs tested,
high were nonpromiscuous by these criteria. Surprisingly, four of the drugs
showed promiscuous, aggregation-based inhibition at concns. below 100
µM: clotrimazole, benzyl benzoate, nicardipine, and delavirdine. Three
other drugs also behaved as aggregation-based inhibitors, but only at
concns. (about 400 µM). To investigate possible structure-activity
relationships among promiscuous drugs, five analogs of the antifungal
clotrimazole were studied. Three of these, miconazole, econazole, and
sulconazole, were promiscuous but the other two, fluconazole and
ketoconazole, were not. Using recursive partitioning, these exptl.
results were used to develop a model for predicting aggregate-based
promiscuity. This model correctly classified 94% of 111 compds.-- 47
aggregators and 64 nonaggregators-- that have been studied for this
effect. To evaluate the model, it was used to predict the behavior of 75
drugs not previously investigated for aggregation. Several preliminary
points emerge. Most drugs are not promiscuous, even at high concns.
Nevertheless, at high enough concns. (20-400 µM), some drugs can
aggregate and act promiscuously, suggesting that aggregation may be
common
among small mols. at micromolar concns., at least in biochem. buffers.
REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR
THIS
FORMAT RECORD. ALL CITATIONS AVAILABLE IN THE RE

L5 ANSWER 7 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:570644 CAPLUS
DOCUMENT NUMBER: 139:133575
TITLE: Preparation of bicyclic pyrimidinyl derivatives as
adenosine receptor ligands
INVENTOR(S): Castelhana, Arlindo L.; McKibben, Bryan
PATENT ASSIGNEE(S): OSI Pharmaceuticals Inc., USA
SOURCE: U.S. Pat. Appl. Publ., 105 pp.
CODEN: USXXCO
Patent
DOCUMENT TYPE: English
LANGUAGE:
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
PATENT NO. KIND DATE APPLICATION NO. DATE

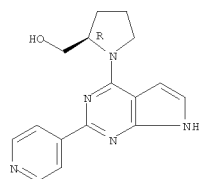
US 2003139427 A1 20030724 US 2002-227378 20020823
PRIORITY APPLN. INFO.: US 2002-227378 20020823
OTHER SOURCE(S): MARPAT 139:133575
IT 343631-98-1P 343632-22-4P 343632-23-5P
343632-24-6P 343632-25-7P 343632-26-8P
343632-28-0P 343632-29-1P 343632-34-8P
343632-42-8P 343632-47-3P 343632-48-4P
343632-49-5P 565234-94-8P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
(Uses)
(preparation of bicyclic pyrazolo- imidazo- and triazolopyrimidinyl
derivs.
as adenosine receptor ligands)
RN 343631-98-1 CAPLUS
CN Acetamide,
N-[1-(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-3-
piperidinyl]- (9CI) (CA INDEX NAME)



RN 343632-22-4 CAPLUS
CN 2-Pyrrolidinemethanol,
1-[2-(4-pyridinyl)-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-
, (2R)- (9CI) (CA INDEX NAME)

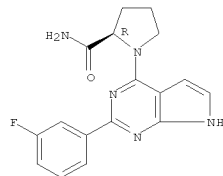
Absolute stereochemistry.

L5 ANSWER 7 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



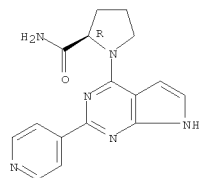
RN 343632-23-5 CAPLUS
CN 2-Pyrrolidinecarboxamide,
1-[2-(3-fluorophenyl)-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 343632-24-6 CAPLUS
CN 2-Pyrrolidinecarboxamide,
1-[2-(4-pyridinyl)-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (2R)- (9CI) (CA INDEX NAME)

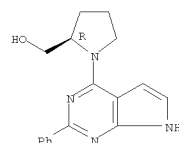
Absolute stereochemistry.



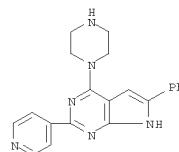
RN 343632-25-7 CAPLUS

L5 ANSWER 7 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
CN 2-Pyrrolidinemethanol, 1-(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-,
(2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

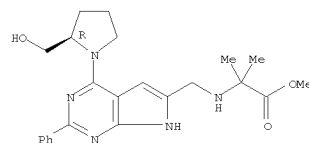


RN 343632-26-8 CAPLUS
CN 1H-Pyrrolo[2,3-d]pyrimidine, 6-phenyl-4-(1-piperazinyl)-2-(4-pyridinyl)-
(9CI) (CA INDEX NAME)



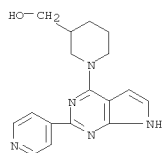
RN 343632-28-0 CAPLUS
CN Alanine, N-[[4-[(2R)-2-(hydroxymethyl)-1-pyrrolidinyl]-2-phenyl-1H-
pyrrolo[2,3-d]pyrimidin-6-yl]methyl]-2-methyl-, methyl ester (9CI) (CA
INDEX NAME)

Absolute stereochemistry.

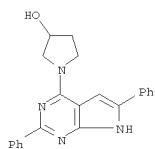


RN 343632-29-1 CAPLUS
CN 3-Piperidinemethanol,
1-[2-(4-pyridinyl)-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-
(9CI) (CA INDEX NAME)

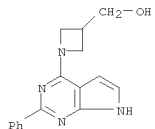
L5 ANSWER 7 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 343632-34-8 CAPLUS
CN 3-Pyrrolidinol, 1-(2,6-diphenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)- (9CI)
(CA INDEX NAME)



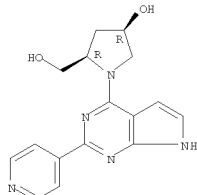
RN 343632-42-8 CAPLUS
CN 3-Azetidinemethanol, 1-(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)- (9CI)
(CA INDEX NAME)



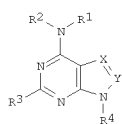
RN 343632-47-3 CAPLUS
CN 3-Pyrrolidineacetic acid, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, methyl ester (9CI) (CA INDEX NAME)

L5 ANSWER 7 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

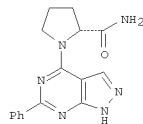
Relative stereochemistry.



GI



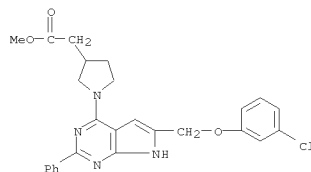
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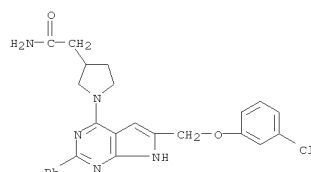
II

AB Title compds. I [Y = N, CR5 and X = N, CR6 wherein X, Y are both N or when
Y = CR5, X = N or when X = CR6, Y = N; R1-2 = H, alkoxy, aminoalkyl, etc; R3-4 = H, alkyl, aryl, alkylaryl] are prepared For instance, 3-amino-4-carbamoylpyrazole is acylated with benzoyl chloride (Pyridine, 50°, 5-6 h), cyclized to the corresponding pyrazolopyrimidine (water, K2CO3, 100°, 16 h), converted to the chloride (POCl3, 106°, 2 h) and used for reactions with various amines to give the example compds., e.g., II. II has Ki = 76.7 nM for the adenosine A1 receptor, Ki = 242.7 nM for A2a and Ki = 1480.5 nM for A2b. I are useful for the treatment of.

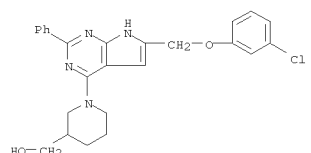
L5 ANSWER 7 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 343632-48-4 CAPLUS
CN 3-Pyrrolidineacetamide, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]- (9CI) (CA INDEX NAME)



RN 343632-49-5 CAPLUS
CN 2-Piperidinemethanol, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]- (9CI) (CA INDEX NAME)



RN 565234-94-8 CAPLUS
CN 2-Pyrrolidineethanol, 4-hydroxy-1-[2-(4-pyridinyl)-1H-pyrrolo[2,3-d]pyrimidin-4-yl]- (9CI) (CA INDEX NAME)

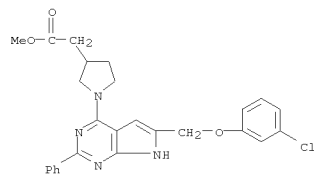
L5 ANSWER 8 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:511094 CAPLUS
DOCUMENT NUMBER: 139:85365
TITLE: Preparation of pyrrolopyrimidine A2b selective antagonist compounds, method of synthesis and therapeutic use
INVENTOR(S): Castelhana, Arlindo L.; McKibben, Bryan; Steinig, Arno
PATENT ASSIGNEE(S): G. Osi Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 223 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

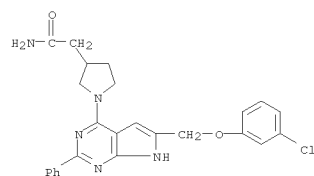
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003053361	A2	20030703	WO 2002-US40890	20021220
WO 2003053361	A3	20031224		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2470044	A1	20030703	CA 2002-2470044	20021220
AU 2002366801	A1	20030709	AU 2002-366801	20021220
US 2003229067	A1	20031211	US 2002-326005	20021220
EP 1467995	A2	20041020	EP 2002-805644	20021220
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK			
BR 2002015279	A	20050510	BR 2002-15279	20021220
JP 2005525305	T	20050825	JP 2003-554121	20021220
CN 1816551	A	20060809	CN 2002-828272	20021220
PRIORITY APPLN. INFO.:			US 2001-34343P	P 20011220
			WO 2002-US40890	W 20021220

OTHER SOURCE(S): CASREACT 139:85365; MARPAT 139:85365
IT 343632-47-3P, [1-[6-[(3-Chlorophenoxy)methyl]-2-phenyl-7H-pyrrolo[2,3-d]pyrimidin-4-yl]pyrrolidin-3-yl]acetic acid methyl ester 343632-48-4P, 2-[1-[6-[(3-Chlorophenoxy)methyl]-2-phenyl-7H-pyrrolo[2,3-d]pyrimidin-4-yl]pyrrolidin-3-yl]acetamide 343632-49-5P, [1-[6-[(3-Chlorophenoxy)methyl]-2-phenyl-7H-pyrrolo[2,3-d]pyrimidin-4-yl]piperidin-3-yl]methanol 553631-86-OP, 2-[1-[6-[(3-Chlorophenoxy)methyl]-2-phenyl-7H-pyrrolo[2,3-d]pyrimidin-4-yl]pyrrolidin-2-yl]ethanol 553631-95-1P, [1-[6-[(3-Chlorophenoxy)methyl]-2-phenyl-7H-pyrrolo[2,3-d]pyrimidin-4-yl]pyrrolidin-3-yl]acetic acid 553632-01-2P, [1-[6-[(3-Chlorophenoxy)methyl]-2-phenyl-7H-pyrrolo[2,3-d]pyrimidin-4-yl]azetidin-3-yl]methanol 553632-30-7P, 1-[4-[6-[(3-Chlorophenoxy)methyl]-2-phenyl-7H-pyrrolo[2,3-d]pyrimidin-4-yl]piperazin-1-yl]ethanone 553632-31-8P

L5 ANSWER 8 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
 , 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-7H-pyrrolo[2,3-d]pyrimidin-4-yl]azetidin-3-ol
 RI: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (drug candidate; prepn. of pyrrolopyrimidine A2b selective antagonist compds., method of synthesis and therapeutic use)
 RN 343632-47-3 CAPLUS
 CN 3-Pyrrolidineacetic acid, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, methyl ester (9CI) (CA INDEX NAME)

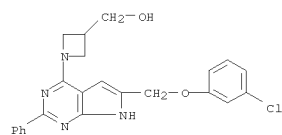


RN 343632-48-4 CAPLUS
 CN 3-Pyrrolidineacetamide, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]- (9CI) (CA INDEX NAME)

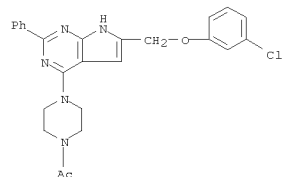


RN 343632-49-5 CAPLUS
 CN 3-Piperidineethanol, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]- (9CI) (CA INDEX NAME)

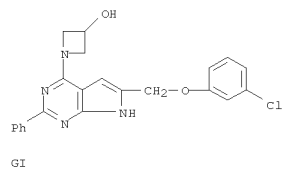
L5 ANSWER 8 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 553632-30-7 CAPLUS
 CN Piperazine, 1-acetyl-4-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]- (9CI) (CA INDEX NAME)

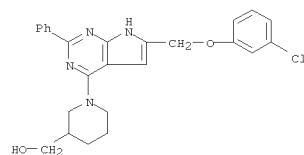


RN 553632-31-8 CAPLUS
 CN 3-Azetidinol, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]- (9CI) (CA INDEX NAME)

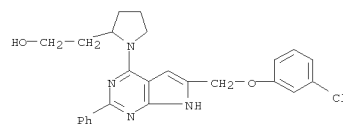


GI

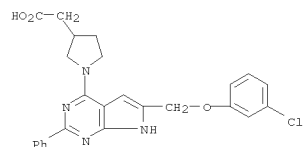
L5 ANSWER 8 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 553631-86-0 CAPLUS
 CN 2-Pyrrolidineethanol, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]- (9CI) (CA INDEX NAME)

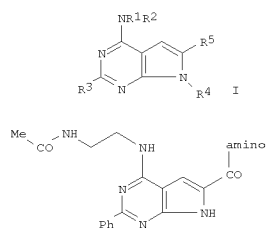


RN 553631-95-1 CAPLUS
 CN 3-Pyrrolidineacetic acid, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]- (9CI) (CA INDEX NAME)



RN 553632-01-2 CAPLUS
 CN 3-Azetidinemethanol, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]- (9CI) (CA INDEX NAME)

L5 ANSWER 8 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



AB The subject invention provides pyrrolopyrimidines (shown as I; see below for variable definitions; e.g. N-[2-[6-[1-[2-(2-chlorophenyl)ethyl]piperidin-4-yl]oxymethyl]-2-phenyl-7H-pyrrolo[2,3-d]pyrimidin-4-ylamino]ethyl]acetamide (II)) or a specific enantiomer thereof, or a specific tautomer thereof, or a pharmaceutically acceptable salt thereof, and a method for treating a disease associated with the A2b adenosine receptor. For I: R1 is a (un)substituted alkyl (substituent = hydroxyl, dihydroxy, carboxyl, -C(O)NRaRb, -NRaRb, -NRaC(O)NRaRb, -NRaC(O)ORa, -OC(O)NRaRb, or -NHC(O)Ra). R2 is H or a (un)substituted alkyl (substituent = hydroxyl, dihydroxy, carboxyl, -C(O)NRaRb, -NRaRb, -NRaC(O)NRaRb, -NRaC(O)ORa, -OC(O)NRaRb, or -NHC(O)Ra), or R1, R2 and N together form a substituted piperazine, substituted azetidine, or a pyrrolidine ring substituted with -(CH2)2OH or -(CH2C(O)OH). R3 is a (un)substituted Ph or a 5-6 membered heteroaryl ring, wherein the substituent is halogen, hydroxyl, cyano, (C1-C15)alkyl, (C1-C15)alkoxyl or -NRaRb; R4 is H or (un)substituted (C1-C15)alkyl; R5 is -(CH2)mOR6, -CHNOR7, -C(O)NR8R9, -(CH2)mC(O)OR10, -(CH2)kC(O)NR11R12; addnl. details are given in the claims. Radioligand binding assays yielded selectivities

for the A2b receptor relative to the A1, A2a and A3 receptors for 9 examples of I, e.g. 26 times for II. About 26 example preps. of I and intermediates and characterization data for hundreds of I and intermediates are included. For example, III can be prepared by reacting 4-chloro-2-phenyl-7H-pyrrolo[2,3-d]pyrimidine with PhSO2Cl and a reducing agent in the presence of solvent to produce 7-benzenesulfonyl-4-chloro-2-phenyl-7H-pyrrolo[2,3-d]pyrimidine, which was reacted with CO2 in the presence of LDA and a solvent to produce lithium 7-benzenesulfonyl-4-chloro-2-phenyl-7H-pyrrolo[2,3-d]pyrimidine-6-carboxylate, which was reacted with AcNHCH2CH2NH2 in the presence of solvent to give 4-(2-acetylaminoethylamino)-7-benzenesulfonyl-2-phenyl-7H-pyrrolo[2,3-d]pyrimidine-6-carboxylic acid, which was deprotected with a hydroxide base and subsequently condensed with amines.

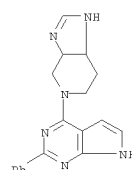
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L5 ANSWER 9 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2003:454286 CAPLUS
 DOCUMENT NUMBER: 139:36534
 TITLE: Preparation of arylpyrrolopyrimidines as adenosine A1 and A3 receptor inhibitors
 INVENTOR(S): Castelhana, Arlindo L.; McKibben, Bryan; Werner, Douglas S.; Witter, David
 PATENT ASSIGNEE(S): OSI Pharmaceuticals, Inc., USA
 SOURCE: PCT Int. Appl., 170 pp.
 CODEN: FIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003048120	A2	20030612	WO 2002-US38055	20021127
WO 2003048120	A3	20030904		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2468673	A1	20030612	CA 2002-2468673	20021127
AU 2002360436	A1	20030617	AU 2002-360436	20021127
EP 1450811	A2	20040901	EP 2002-795691	20021127
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK			
US 2005090513	A1	20050428	US 2003-497451	20021127
JP 2005529062	T	20050929	JP 2003-549312	20021127
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			WO 2002-US38055	W 20021127

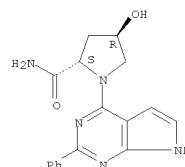
OTHER SOURCE(S): MARPAT 139:36534
 IT 541503-89-3P 541503-93-9P
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of arylpyrrolopyrimidines as adenosine A1 and A3 receptor inhibitors)
 RN 541503-89-3 CAPLUS
 CN 1H-Pyrrolo[2,3-d]pyrimidine, 4-(1,3a,4,6,7,7a-hexahydro-5H-imidazo[4,5-c]pyridin-5-yl)-2-phenyl- (9CI) (CA INDEX NAME)

L5 ANSWER 9 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



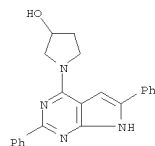
RN 541503-93-9 CAPLUS
 CN 2-Pyrrolidinecarboxamide, 4-hydroxy-1-(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-, (2S,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

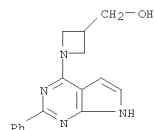


IT 343632-34-8P 343632-42-8P 343632-47-3P
 343632-48-4P 343632-49-5P
 RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of arylpyrrolopyrimidines as adenosine A1 and A3 receptor inhibitors)
 RN 343632-34-8 CAPLUS
 CN 3-Pyrrolidinol, 1-(2,6-diphenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)- (9CI) (CA INDEX NAME)

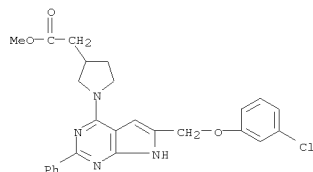
L5 ANSWER 9 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 343632-42-8 CAPLUS
 CN 3-Azetidinemethanol, 1-(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)- (9CI) (CA INDEX NAME)

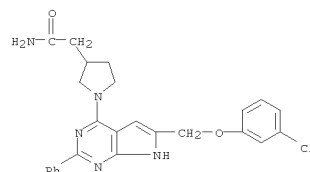


RN 343632-47-3 CAPLUS
 CN 3-Pyrrolidineacetic acid, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, methyl ester (9CI) (CA INDEX NAME)

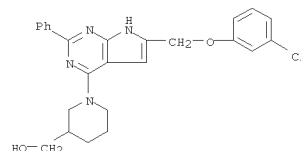


RN 343632-48-4 CAPLUS
 CN 3-Pyrrolidineacetamide, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]- (9CI) (CA INDEX NAME)

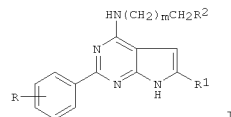
L5 ANSWER 9 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 343632-49-5 CAPLUS
 CN 3-Piperidinemethanol, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]- (9CI) (CA INDEX NAME)



GI



AB Arylpyrrolopyrimidines I [m = 0-3; R = halogen, alkyl, alkoxy, OH, NH2, alkylamino; R1 = H, (un)substituted alkyl, aryl, aralkyl; R2 = (un)substituted imidazole, pyrazole, attached through C] which specifically inhibit the adenosine A1 and A3 receptors were prepared
 Thus, 4-chloro-2-phenyl-7H-pyrrolo[2,3-d]pyrimidine was treated with histamine to give the 4-[2-(1H-imidazol-2-yl)ethyl]amino analog which had A3 inhibiting activity ≥10 times greater than that of reference compds.

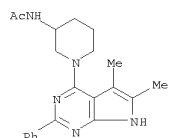
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L5 ANSWER 10 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2003:300617 CAPLUS
 DOCUMENT NUMBER: 138:321287
 TITLE: Preparation of deazapurines as adenosine A3 receptor antagonists.
 INVENTOR(S): Castelhana, Arlindo L.; McKibben, Bryan; Witter, David
 PATENT ASSIGNEE(S): J. OSI Pharmaceuticals, Inc., USA
 SOURCE: U.S. Pat. Appl. Publ., 77 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003073708	A1	20030417	US 2001-6405	20011130
US 6673802	B2	20040106		

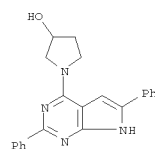
PRIORITY APPLN. INFO.: US 2000-250748P P 20001201

OTHER SOURCE(S): MARPAT 138:321287
 IT 343631-98-1P 343632-34-8P 343632-42-8P
 343632-47-3P 343632-48-4P 343632-49-5P
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of deazapurines as adenosine A3 receptor antagonists)
 RN 343631-98-1 CAPLUS
 CN Acetamide,
 N-[1-(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-3-piperidinyl]- (9CI) (CA INDEX NAME)

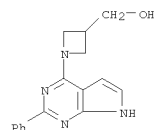


RN 343632-34-8 CAPLUS
 CN 3-Pyrrolidinol, 1-(2,6-diphenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)- (9CI)
 (CA INDEX NAME)

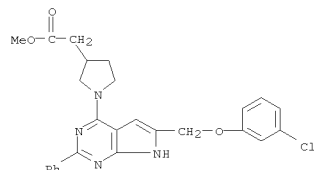
L5 ANSWER 10 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 343632-42-8 CAPLUS
 CN 3-Azetidinemethanol, 1-(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)- (9CI)
 (CA INDEX NAME)

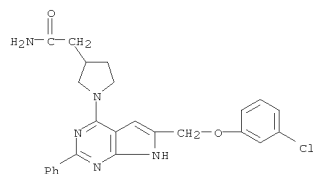


RN 343632-47-3 CAPLUS
 CN 3-Pyrrolidineacetic acid, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, methyl ester (9CI) (CA INDEX NAME)

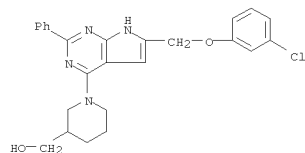


RN 343632-48-4 CAPLUS
 CN 3-Pyrrolidineacetamide, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]- (9CI) (CA INDEX NAME)

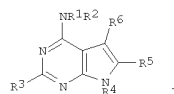
L5 ANSWER 10 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 343632-49-5 CAPLUS
 CN 3-Piperidinemethanol, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]- (9CI) (CA INDEX NAME)



GI



AB Title compds. [I; R1, R2 = H, (substituted) alkyl, aryl, aralkyl; R1R2 = atoms to form (substituted) heterocyclyl; R3 = (substituted) alkyl, aryl, aralkyl; R4 = H, (substituted) alkyl, aryl, aralkyl; R5, R6 = H, halo, (substituted) alkyl, aryl, alkylaryl; R4R5 or R5R6 = (substituted) heterocyclyl, carbocyclyl], were prepared. Thus, 2-phenyl-7H-pyrrolo[2,3-d]pyrimidin-4-ylamine and histamine were heated at 120° in Me2SO for 6.5 h to give 43% [2-(3H-imidazol-4-yl)ethyl] [2-phenyl-7H-pyrrolo[2,3-d]pyrimidin-4-yl]amine. The latter had 10 times the A3 receptor binding affinity of a reference compound
 REFERENCE COUNT: 118 THERE ARE 118 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

L5 ANSWER 10 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
 FORMAT

L5 ANSWER 11 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:174478 CAPLUS
DOCUMENT NUMBER: 138:221598
TITLE: Preparation of pyrrolo[2,3-d]pyrimidinamines as selective adenosine A1 receptor inhibitors for treatment of asthma, COPD, and other conditions
INVENTOR(S): Castelano, Arlindo L.; McKibben, Bryan; Witter, David
PATENT ASSIGNEE(S): J. OSI Pharmaceuticals, Inc., USA
SOURCE: U.S. Pat. Appl. Publ., 79 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

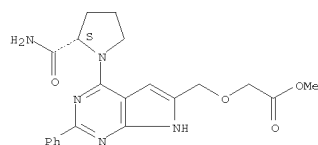
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003045536	A1	20030306	US 2001-280	20011130
US 6680324	B2	20040120		
US 2004082598	A1	20040429	US 2003-718280	20031120
US 2004082599	A1	20040429	US 2003-718411	20031120

PRIORITY APPLN. INFO.: US 2000-250895P P 20001201

	US 2001-280	A1 20011130

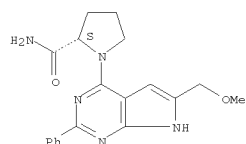
OTHER SOURCE(S): MARPAT 138:221598
IT 343632-65-5P, (S)-[[4-(2-Carbamoylpyrrolidin-1-yl)-2-phenyl-7H-pyrrolo[2,3-d]pyrimidin-6-yl]methoxy]acetic acid methyl ester
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(A1 receptor inhibitor; preparation of pyrrolopyrimidinamines adenosine A1 receptor inhibitors from aminocyanopyrroles for treatment of asthma, COPD, and other conditions)
RN 343632-65-5 CAPLUS
CN Acetic acid, [[4-[(2S)-2-(aminocarbonyl)-1-pyrrolidinyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-6-yl]methoxy]-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



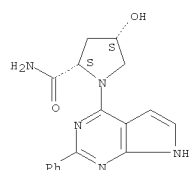
L5 ANSWER 11 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
RN 343632-53-1 CAPLUS
CN 2-Pyrrolidinecarboxamide, 1-[6-(methoxymethyl)-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



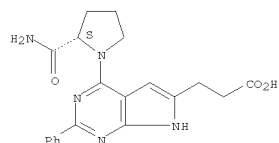
RN 343632-54-2 CAPLUS
CN 2-Pyrrolidinecarboxamide, 4-hydroxy-1-(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-, (2S,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

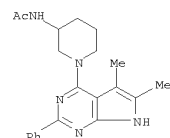


RN 343632-55-3 CAPLUS
CN 1H-Pyrrolo[2,3-d]pyrimidine-6-propanoic acid, 4-[(2S)-2-(aminocarbonyl)-1-pyrrolidinyl]-2-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

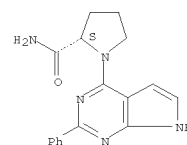


L5 ANSWER 11 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
IT 343631-98-1P, 4-[3-(Acetamido)piperidinyl]-5,6-dimethyl-2-phenyl-7H-pyrrolo[2,3-d]pyrimidine 343632-52-0P 343632-53-1P 343632-54-2P 343632-55-3P 343632-57-5P 343632-58-6P 343632-59-7P, 1-(6-Methyl-2-phenyl-7H-pyrrolo[2,3-d]pyrimidine-4-yl)-(S)-pyrrolidine-2-carboxylic acid amide 343632-60-0P, (S)-1-[6-[(2-Hydroxyethoxy)methyl]-2-phenyl-7H-pyrrolo[2,3-d]pyrimidin-4-yl]pyrrolidine-2-carboxylic acid amide 343632-66-6P, (S)-[[4-(2-Carbamoylpyrrolidin-1-yl)-2-phenyl-7H-pyrrolo[2,3-d]pyrimidin-6-yl]methoxy]acetic acid 500736-07-2P, (S)-1-[6-[(4-Hydroxy-4-phenylpiperidin-1-yl)methyl]-2-phenyl-7H-pyrrolo[2,3-d]pyrimidin-4-yl]pyrrolidine-2-carboxylic acid amide RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(A1 receptor inhibitor; preparation of pyrrolopyrimidinamines adenosine A1 receptor inhibitors from aminocyanopyrroles for treatment of asthma, COPD, and other conditions)
RN 343631-98-1 CAPLUS
CN Acetamide,
N-[1-(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-3-piperidinyl]- (9CI) (CA INDEX NAME)



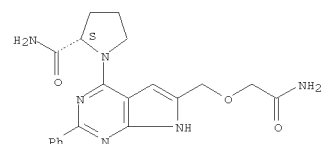
RN 343632-52-0 CAPLUS
CN 2-Pyrrolidinecarboxamide, 1-(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



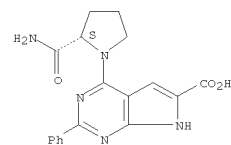
L5 ANSWER 11 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
RN 343632-57-5 CAPLUS
CN 2-Pyrrolidinecarboxamide, 1-[6-[(2-amino-2-oxoethoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



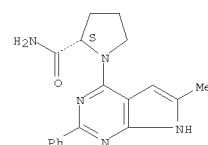
RN 343632-58-6 CAPLUS
CN 1H-Pyrrolo[2,3-d]pyrimidine-6-carboxylic acid, 4-[(2S)-2-(aminocarbonyl)-1-pyrrolidinyl]-2-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 343632-59-7 CAPLUS
CN 2-Pyrrolidinecarboxamide, 1-(6-methyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

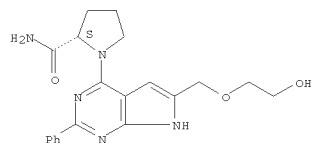


RN 343632-60-0 CAPLUS

10816329.trn

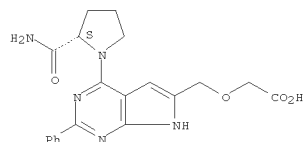
L5 ANSWER 11 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
CN 2-Pyrrolidinecarboxamide, 1-[6-[(2-hydroxyethoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



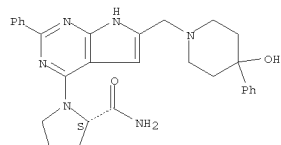
RN 343632-66-6 CAPLUS
CN Acetic acid, [[4-[(2S)-2-(aminocarbonyl)-1-pyrrolidinyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-6-yl]methoxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

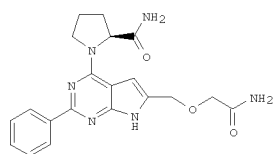
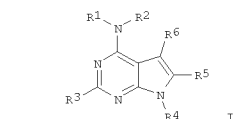


RN 500736-07-2 CAPLUS
CN 2-Pyrrolidinecarboxamide, 1-[6-[(4-hydroxy-4-phenyl-1-piperidinyl)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



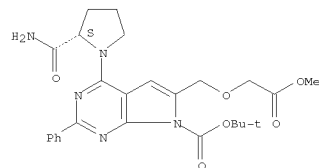
L5 ANSWER 11 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



AB Title diazapurinamines I [wherein R1, R2, and R4 = independently H or (un)substituted alkyl(aryl) or aryl; or NR1R2 = (un)substituted heterocyclyl; R3 = (un)substituted alkyl(aryl), aryl, CO2H, carboxy esters, or carboxamides; or C2R3R4 or C2R5R6 = (un)substituted carbocyclyl or heterocyclyl; R5 and R6 = independently H, halo, or (un)substituted alkyl(aryl) or aryl; and pharmaceutically acceptable salts and prodrugs thereof] were prepared as adenosine A1 specific inhibitors. For example, 4-chloro-5-methyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidine was protected with di-t-Bu dicarbonate (80%), brominated (84%), coupled with anhydrous Me glycolate (99%), coupled with L-prolinamide (92%), and deprotected (93%) to give II. The latter exhibited adenosine A1 receptor binding equal to or surpassing that of reference compds. and is expected to have better water solubility (cLogP = 1.5) than reference compds. (cLogP = 3.8). Efficacy and structure activity profiles of diazapurines of the invention are also disclosed. Thus, I are useful for the treatment of asthma, chronic obstructive pulmonary disease (COPD), allergic rhinitis, upper respiratory disorder, and congestive heart failure (no data).

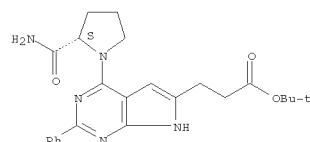
L5 ANSWER 11 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
IT 343632-56-4P 343633-10-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of pyrrolopyrimidinamines adenosine A1 receptor inhibitors from aminocyanopyrroles for treatment of asthma, COPD, and other conditions)
RN 343632-56-4 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine-7-carboxylic acid, 4-[(2S)-2-(aminocarbonyl)-1-pyrrolidinyl]-6-[(2-methoxy-2-oxoethoxy)methyl]-2-phenyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 343633-10-3 CAPLUS
CN 1H-Pyrrolo[2,3-d]pyrimidine-6-propanoic acid, 4-[(2S)-2-(aminocarbonyl)-1-pyrrolidinyl]-2-phenyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



GI

L5 ANSWER 12 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:555495 CAPLUS
DOCUMENT NUMBER: 137:109485
TITLE: Preparation of pyrrolopyrimidinylprolineamides and analogs as adenosine receptor antagonists
INVENTOR(S): Castelhamo, Arlindo L.; McKibben, Bryan; Witter, David
PATENT ASSIGNEE(S): J. Osi Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 320 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002057267	A1	20020725	WO 2001-US45280	20011130
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MM, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MM, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2002058667	A1	20020516	US 2000-728316	20001201
US 6680322	B2	20040120		
US 2002094974	A1	20020718	US 2000-728616	20001201
US 7160890	B2	20070109		
US 2003036545	A1	20030220	US 2000-728607	20001201
US 6664252	B2	20031216		
CA 2430577	A1	20020725	CA 2001-2430577	20011130
EP 1347980	A1	20031001	EP 2001-997029	20011130
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2001015847	A	20040225	BR 2001-15847	20011130
JP 2004517896	T	20040617	JP 2002-557944	20011130
HU 200400692	A2	20040728	HU 2004-692	20011130
NZ 525885	A	20050128	NZ 2001-525885	20011130
IN 2003DN00802	A	20070112	IN 2003-DN802	20030522
NO 2003002482	A	20030728	NO 2003-2482	20030602
PRIORITY APPLN. INFO.:				
			US 1999-169037P	P 19991202
			US 2000-728316	A 20001201
			US 2000-728616	A 20001201
			US 2000-728607	A 20001204
			US 1999-168803P	P 19991202
			US 1999-169036P	P 19991202
			WO 2001-US45280	W 20011130

OTHER SOURCE(S): MARPAT 137:109485

L5 ANSWER 12 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

IT 343631-98-1P 343632-22-4P 343632-23-5P
343632-24-6P 343632-25-7P 343632-26-8P
343632-27-9P 343632-28-0P 343632-29-1P
343632-34-8P 343632-42-8P 343632-47-3P
343632-48-4P 343632-49-5P 343632-51-9P
343632-52-0P 343632-53-1P 343632-54-2P
343632-55-3P 343632-57-5P 343632-58-6P
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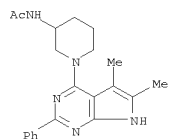
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of pyrrolopyrimidinylprolineamides and analogs as adenosine receptor antagonists)

RN 343631-98-1 CAPLUS

CN Acetamide,

N-[1-(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-3-piperidinyl]- (9CI) (CA INDEX NAME)

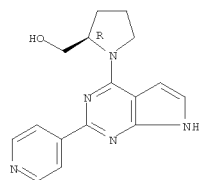


RN 343632-22-4 CAPLUS

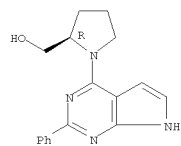
CN 2-Pyrrolidinemethanol,

1-[2-(4-pyridinyl)-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

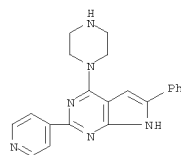


L5 ANSWER 12 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 343632-26-8 CAPLUS

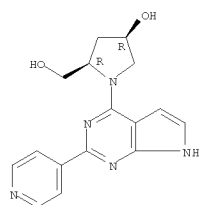
CN 1H-Pyrrolo[2,3-d]pyrimidine, 6-phenyl-4-(1-piperazinyl)-2-(4-pyridinyl)- (9CI) (CA INDEX NAME)



RN 343632-27-9 CAPLUS

CN 2-Pyrrolidinemethanol, 4-hydroxy-1-[2-(4-pyridinyl)-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (2R,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 343632-28-0 CAPLUS

CN Alanine, N-[[4-[(2R)-2-(hydroxymethyl)-1-pyrrolidinyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-6-yl]methyl]-2-methyl-, methyl ester (9CI) (CA INDEX NAME)

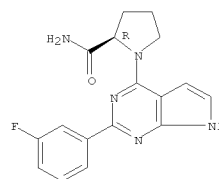
L5 ANSWER 12 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 343632-23-5 CAPLUS

CN 2-Pyrrolidinecarboxamide,

1-[2-(3-fluorophenyl)-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

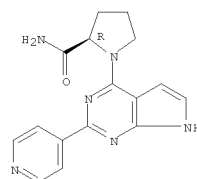


RN 343632-24-6 CAPLUS

CN 2-Pyrrolidinecarboxamide,

1-[2-(4-pyridinyl)-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



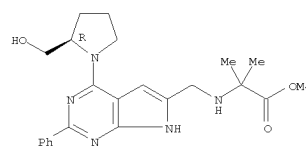
RN 343632-25-7 CAPLUS

CN 2-Pyrrolidinemethanol, 1-(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L5 ANSWER 12 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

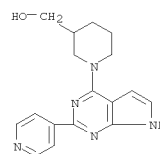
Absolute stereochemistry.



RN 343632-29-1 CAPLUS

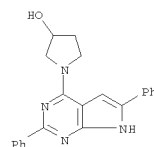
CN 3-Piperidinemethanol,

1-[2-(4-pyridinyl)-1H-pyrrolo[2,3-d]pyrimidin-4-yl]- (9CI) (CA INDEX NAME)



RN 343632-34-8 CAPLUS

CN 3-Pyrrolidinol, 1-(2,6-diphenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)- (9CI) (CA INDEX NAME)

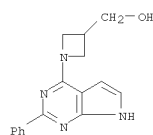


RN 343632-42-8 CAPLUS

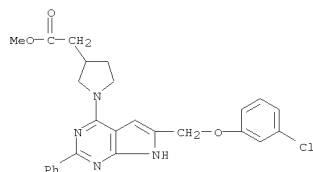
CN 3-Azetidinemethanol, 1-(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)- (9CI) (CA INDEX NAME)

10816329.trn

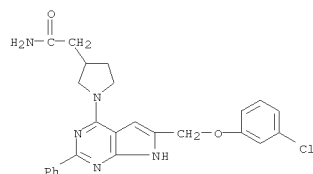
L5 ANSWER 12 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 343632-47-3 CAPLUS
CN 3-Pyrrolidineacetate, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, methyl ester (9CI) (CA INDEX NAME)



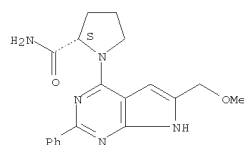
RN 343632-48-4 CAPLUS
CN 3-Pyrrolidineacetamide, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]- (9CI) (CA INDEX NAME)



RN 343632-49-5 CAPLUS
CN 3-Piperidinemethanol, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]- (9CI) (CA INDEX NAME)

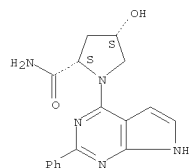
L5 ANSWER 12 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

Absolute stereochemistry.



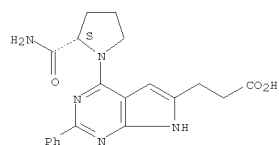
RN 343632-54-2 CAPLUS
CN 2-Pyrrolidinecarboxamide, 4-hydroxy-1-(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-, (2S,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



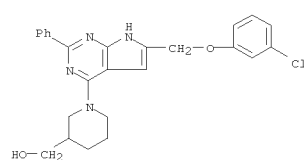
RN 343632-55-3 CAPLUS
CN 1H-Pyrrolo[2,3-d]pyrimidine-6-propanoic acid, 4-[(2S)-2-(aminocarbonyl)-1-pyrrolidinyl]-2-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



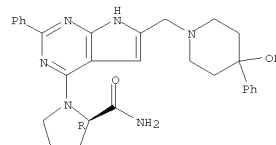
RN 343632-57-5 CAPLUS
CN 2-Pyrrolidinecarboxamide, 1-[6-[(2-amino-2-oxoethoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (2S)- (9CI) (CA INDEX NAME)

L5 ANSWER 12 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



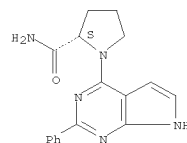
RN 343632-51-9 CAPLUS
CN 2-Pyrrolidinecarboxamide, 1-[6-[(4-hydroxy-4-phenyl-1-piperidinyl)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 343632-52-0 CAPLUS
CN 2-Pyrrolidinecarboxamide, 1-(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-, (2S)- (9CI) (CA INDEX NAME)

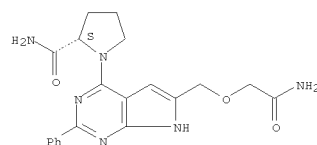
Absolute stereochemistry.



RN 343632-53-1 CAPLUS
CN 2-Pyrrolidinecarboxamide, 1-[6-(methoxymethyl)-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (2S)- (9CI) (CA INDEX NAME)

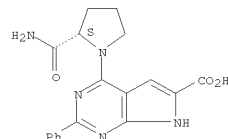
L5 ANSWER 12 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

Absolute stereochemistry.



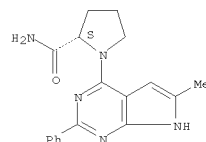
RN 343632-58-6 CAPLUS
CN 1H-Pyrrolo[2,3-d]pyrimidine-6-carboxylic acid, 4-[(2S)-2-(aminocarbonyl)-1-pyrrolidinyl]-2-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 343632-59-7 CAPLUS
CN 2-Pyrrolidinecarboxamide, 1-(6-methyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

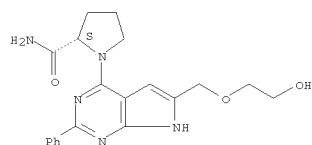


RN 343632-60-0 CAPLUS
CN 2-Pyrrolidinecarboxamide, 1-[6-[(2-hydroxyethoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

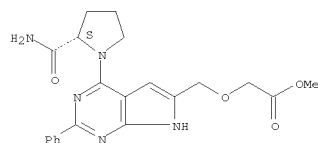
10816329.trn

L5 ANSWER 12 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



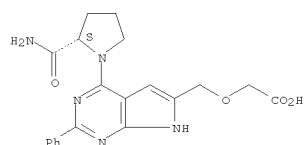
RN 343632-65-5 CAPLUS
CN Acetic acid, [[4-[(2S)-2-(aminocarbonyl)-1-pyrrolidinyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-6-yl]methoxy]-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



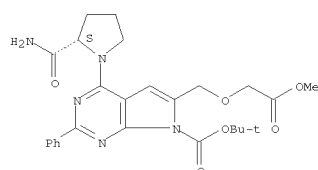
RN 343632-66-6 CAPLUS
CN Acetic acid, [[4-[(2S)-2-(aminocarbonyl)-1-pyrrolidinyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-6-yl]methoxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



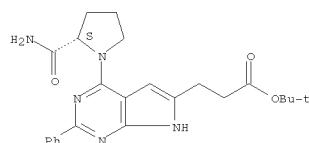
RN 343632-68-8 CAPLUS
CN 2-Pyrrolidinecarboxamide, 1-[6-(3-methoxyphenyl)-2-(4-pyridinyl)-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (2R)- (9CI) (CA INDEX NAME)

L5 ANSWER 12 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

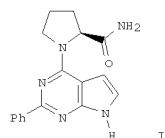


RN 343633-10-3 CAPLUS
CN 1H-Pyrrolo[2,3-d]pyrimidine-6-propanoic acid, 4-[(2S)-2-(aminocarbonyl)-1-pyrrolidinyl]-2-phenyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

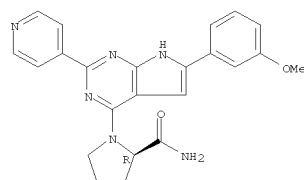


GI



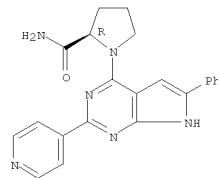
AB Title compds., e.g., I, were prepared Data for biol. activity of title compds. were given.
REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L5 ANSWER 12 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
Absolute stereochemistry.



RN 343633-24-9 CAPLUS
CN 2-Pyrrolidinecarboxamide, 1-[6-phenyl-2-(4-pyridinyl)-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 343632-56-4P 343633-10-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of pyrrolopyrimidinylprolineamides and analogs as adenosine receptor antagonists)
RN 343632-56-4 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine-7-carboxylic acid, 4-[(2S)-2-(aminocarbonyl)-1-pyrrolidinyl]-6-[(2-methoxy-2-oxoethoxy)methyl]-2-phenyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

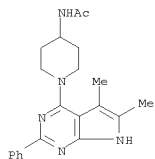
L5 ANSWER 13 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:540257 CAPLUS
DOCUMENT NUMBER: 137:109288
TITLE: Preparation of pyrrolo[2,3-d]pyrimidines as selective inhibitors of the adenosine A3 receptor
INVENTOR(S): Castelano, Arlindo L.; McKibben, Bryan; Witter, David
PATENT ASSIGNEE(S): J. USA
SOURCE: U.S. Pat. Appl. Publ., 83 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002094974	A1	20020718	US 2000-728616	20001201
US 7160890	B2	20070109		
CA 2430577	A1	20020725	CA 2001-2430577	20011130
WO 2002057267	A1	20020725	WO 2001-US45280	20011130
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GR, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1347980	A1	20031001	EP 2001-997029	20011130
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BR 2001015847	A	20040225	BR 2001-15847	20011130
JP 2004517896	T	20040617	JP 2002-557944	20011130
HU 200400692	A2	20040728	HU 2004-692	20011130
NZ 525885	A	20050128	NZ 2001-525885	20011130
NO 2003002482	A	20030728	NO 2003-2482	20030602
PRIORITY APPLN. INFO.:				US 1999-169036P P 19991202
				US 1999-169037P P 19991202
				US 2000-728316 A 20001201
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				US 2000-728616 A 20001201
				WO 2001-US45280 W 20011130

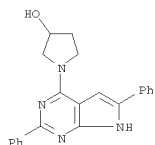
OTHER SOURCE(S): MARPAT 137:109288
IT 251946-53-9P 343632-34-8P 343632-42-8P
343632-47-3P 343632-48-4P 343632-49-5P
343632-84-8P 343632-85-9P 343632-86-0P
343632-87-1P 343632-88-2P 343632-89-3P
343632-90-6P 343632-91-7P 443118-20-5P
443118-74-9P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU

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L5 ANSWER 13 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
(Uses)
(invention compd.; prepn. of pyrrolo[2,3-d]pyrimidines as selective
inhibitors of the adenosine A3 receptor for the treatment of diseases
such as diarrhea, allergic rhinitis, and eye damage resulting from
injuries or disease)
RN 251946-53-9 CAPLUS
CN Acetamide,
N-[1-(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-4-
piperidinyl]- (9CI) (CA INDEX NAME)

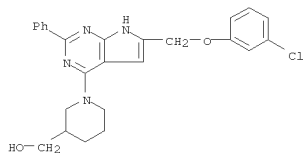


RN 343632-34-8 CAPLUS
CN 3-Pyrrolidinol, 1-(2,6-diphenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)- (9CI)
(CA INDEX NAME)



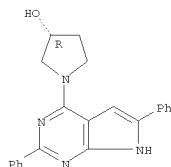
RN 343632-42-8 CAPLUS
CN 3-Azetidinemethanol, 1-(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)- (9CI)
(CA INDEX NAME)

L5 ANSWER 13 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



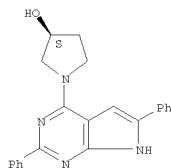
RN 343632-84-8 CAPLUS
CN 3-Pyrrolidinol, 1-(2,6-diphenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-, (3R)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.



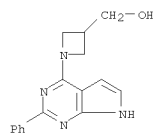
RN 343632-85-9 CAPLUS
CN 3-Pyrrolidinol, 1-(2,6-diphenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-, (3S)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.

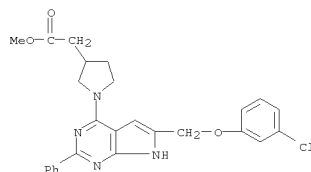


RN 343632-86-0 CAPLUS
CN 3-Pyrrolidineacetic acid, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-
pyrrolo[2,3-d]pyrimidin-4-yl]-, methyl ester, (3R)- (9CI) (CA INDEX
NAME)

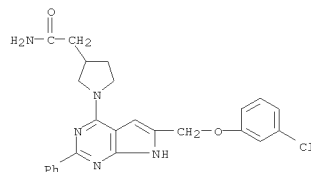
L5 ANSWER 13 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 343632-47-3 CAPLUS
CN 3-Pyrrolidineacetic acid, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-
pyrrolo[2,3-d]pyrimidin-4-yl]-, methyl ester (9CI) (CA INDEX NAME)



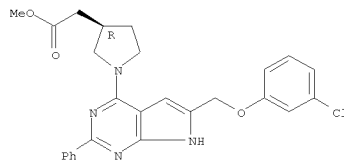
RN 343632-48-4 CAPLUS
CN 3-Pyrrolidineacetamide, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-
pyrrolo[2,3-d]pyrimidin-4-yl]- (9CI) (CA INDEX NAME)



RN 343632-49-5 CAPLUS
CN 3-Piperidinemethanol, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-
pyrrolo[2,3-d]pyrimidin-4-yl]- (9CI) (CA INDEX NAME)

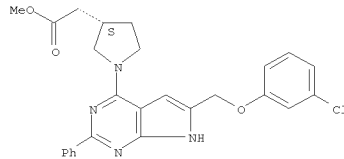
L5 ANSWER 13 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

Absolute stereochemistry.



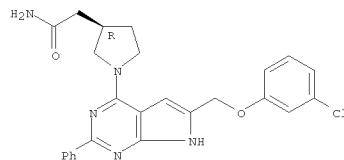
RN 343632-87-1 CAPLUS
CN 3-Pyrrolidineacetic acid, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-
pyrrolo[2,3-d]pyrimidin-4-yl]-, methyl ester, (3S)- (9CI) (CA INDEX
NAME)

Absolute stereochemistry.



RN 343632-88-2 CAPLUS
CN 3-Pyrrolidineacetamide, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-
pyrrolo[2,3-d]pyrimidin-4-yl]-, (3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

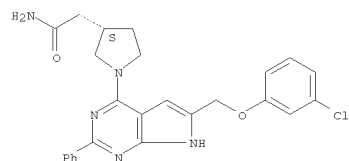


RN 343632-89-3 CAPLUS
CN 3-Pyrrolidineacetamide, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-
pyrrolo[2,3-d]pyrimidin-4-yl]-, (3S)- (9CI) (CA INDEX NAME)

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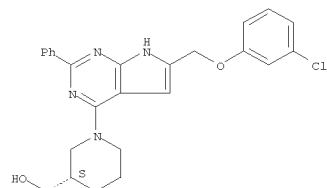
L5 ANSWER 13 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

Absolute stereochemistry.



RN 343632-90-6 CAPLUS
CN 3-Piperidinemethanol, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (3S)- (9CI) (CA INDEX NAME)

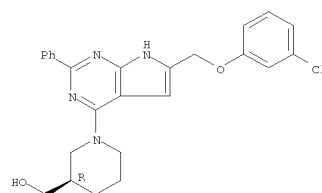
Absolute stereochemistry.



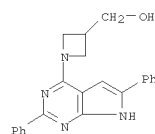
RN 343969-98-2 CAPLUS
CN 3-Piperidinemethanol, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

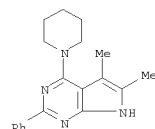
L5 ANSWER 13 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 443118-20-5 CAPLUS
CN 3-Azetidinemethanol, 1-(2,6-diphenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)- (9CI) (CA INDEX NAME)

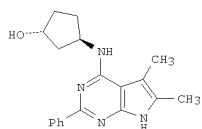
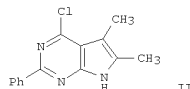


RN 443118-74-9 CAPLUS
CN 1H-Pyrrolo[2,3-d]pyrimidine, 5,6-dimethyl-2-phenyl-4-(1-piperidinyl)- (9CI) (CA INDEX NAME)



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L5 ANSWER 13 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



AB Pyrrolopyrimidines I [R = 3-hydroxycyclopentylamino ethylamino carbonylamino Pr, N,N-diethylamino carbonylamino Et, thioacetamido Et, 3-amino acetyloxy cyclopentyl, 3-hydroxycyclopentyl, 2-pyrrolyl carbonyl aminoethyl, 2-imidazolinone Et, 1-aminocarbonyl-2-methylpropyl, 1-aminocarbonyl-2-Ph Et, 3-hydroxyazetidino, 2-imidazoleethyl, acetamidoethyl, 1-(R)-phenyl-2-hydroxyethyl, N-methylaminocarbonyl pyridyl-2-methyl; R1 = H; RR1N = 3-hydroxypyrrolidino, 3-methyloxy carbonylmethyl pyrrolidino, 3-aminocarbonylmethyl pyrrolidino, 3-hydroxymethyl piperidino; R3, R4 = H, (un)substituted alkyl, aryl] are prepared as selective inhibitors of adenosine receptors, particularly the adenosine A3 receptor, for the treatment of diseases such as asthma, diarrhea, chronic obstructive pulmonary disease, allergic rhinitis, or

for the treatment of eye damage caused either by disease or injury. Human adenosine receptors are transformed into yeast; the modified yeast are used to assay the invention compds. I for their adenosine receptor binding

and selectivities. E.g., 1-(1-phenylethyl)-2-amino-3-cyano-4,5-dimethylpyrrole is acylated with PhCOCl to give the benzamide which undergoes cyclocondensation with concentrated H2SO4 in MeOH to give a pyrrolopyrimidinone; removal of the phenethyl group with polyphosphoric acid and chlorination of the pyrrolopyrimidinone with POCl3 gives the intermediate chloropyrrolopyrimidine II. E.g., addition of amines such

as trans-3-amino-1-cyclopentanol to II in DMSO gives aminopyrrolopyrimidines such as III. III has a Ki for the adenosine A1 receptor of 29 nM and a

Ki for the adenosine A3 receptor of 3.1 nM while binding to the adenosine

A2a and A2b receptors with Ki values of 191 nM and 1143 nM, resp. Formulations of these compds. are claimed (no data). Methods for the preparation of I from the acylation of aminopyrroles with acyl chlorides followed by cyclocondensation and deprotection, chlorination, and substitution of the chlorine atom with an amine are claimed.

REFERENCE COUNT: 128 THERE ARE 128 CITED REFERENCES AVAILABLE FOR

10816329.trn

L5 ANSWER 14 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:368992 CAPLUS
DOCUMENT NUMBER: 136:386128
TITLE: Synthesis and use of substituted pyrrolo[2,3-
b]pyrimidines as selective adenosine A1, A2a and A3
receptor antagonists
INVENTOR(S): Castelhano, Arlindo L.; McKibben, Bryan; Witter,
David
J.
PATENT ASSIGNEE(S): OSI Pharmaceuticals, Inc., USA
SOURCE: U.S. Pat. Appl. Publ., 79 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

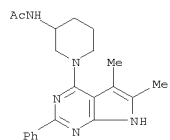
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002058667	A1	20020516	US 2000-728316	20001201
US 6680322	B2	20040120	WO 2001-2430577	20011130
CA 2430577	A1	20020725	US 2001-455280	20011130
WO 2002057267	A1	20020725	US 2001-2430577	20011130
FR: CN	AG, AL, AM	AT, AU, AZ, BA, BB, BG, BY, BZ, CA, CH, CY, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, FG, GD, GE, GR, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LV, LU, MD, MG, MK, MN, MX, MY, NZ, NL, PT, RU, RO, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW		
FRW:	GM, KE, LS, LU, MG, MN, MZ, SD, SL, SZ, TG, TM, ZW	AT, BE, CH, CY, DE, DK, ES, FI, FG, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, CA, GN, GQ, ML, MR, NE, SN, TD, TG		
EP 1347980	A1	20031001	EP 2001-997029	20011130
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BR 2001015847	A	20040225	JP 2001-15847	20011130
JP 2004517896	T	20040617	JP 2004-65974	20011130
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NZ 525885	A	20050128	NZ 2001-525885	20011130
ZA 2003003729	A	20040514	ZA 2003-3729	20030514
IN 2003DN0802	A	20070112	IN 2003-0802	20030522
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PRIORITY APPLN. INFO.:			US 1999-168803P	F 19991220

OTHER SOURCE(S): MARPAT 136:386128

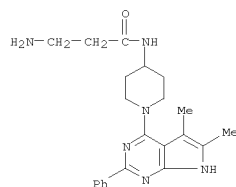
15 ANSWER 14 OF 31 CAPLUS COPYRIGHT NOTICE 2007 ACS ON STN (Continued)

IT 343631-98-1P, Acetamide, N-[1-(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-3-piperidinyl]- 343632-18-8P, Propanamide, 3-amino-N-[1-(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-4-piperidinyl]- 343632-22-4P, 2-Pyrrolidinethanol, 1-[2-(4-pyridinyl)-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (2R)- 343632-23-5P, 2-Pyrrolidinecarboxamide, 1-[2-(3-fluorophenyl)-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (2R)- 343632-24-6P, 2-Pyrrolidinecarboxamide, 1-[2-(4-pyridinyl)-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (2R)- 343632-25-7P, 2-Pyrrolidinethanol, 1-(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-, (2R)- 343632-26-8P, 1H-Pyrrolo[2,3-d]pyrimidine, 6-phenyl-4-(1-piperazinyl)-2-(4-pyridinyl)- 343632-27-9P, 2-Pyrrolidinecarboxamide, 1-(4-hydroxy-1-[2-(4-pyridinyl)-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (2R,4R)- 343632-28-0P, Alanine, N-[[4-[(2R)-2-(hydroxymethyl)-1-pyrrolidinyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-6-yl]methyl]-2-methyl-, methyl ester 343632-29-1P, 3-Piperidinemethanol, 1-[2-(4-pyridinyl)-1H-pyrrolo[2,3-d]pyrimidin-4-yl]- 343632-51-9P, 2-Pyrrolidinecarboxamide, 1-[6-[(4-hydroxy-4-phenyl-1-piperidinyl)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (2R)- 343632-52-0P, 2-Pyrrolidinecarboxamide, 1-[2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (2S)- 343632-53-1P, 2-Pyrrolidinecarboxamide, 1-[6-(methoxymethyl)-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (2S)- 343632-54-2P, 2-Pyrrolidinecarboxamide, 4-hydroxy-1-(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-, (2S,4S)- 343632-55-3P, 1H-Pyrrolo[2,3-d]pyrimidine-6-propanoic acid, 1-[(2S)-2-(aminocarbonyl)-1-pyrrolidinyl]-2-phenyl- 343632-57-5P, 2-Pyrrolidinecarboxamide, 1-[4-[(2-aminooxoethoxymethyl)-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (2S)- 343632-58-6P, 1H-Pyrrolo[2,3-d]pyrimidine-6-carboxylic acid, 4-[(2S)-2-(aminocarbonyl)-1-pyrrolidinyl]-2-phenyl- 343632-59-7P, 2-Pyrrolidinecarboxamide, 1-(6-methyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-, (2S)- 343632-60-0P, 2-Pyrrolidinecarboxamide, 1-[6-[(2-hydroxyethoxymethyl)-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (2S)- 343632-61-5P, Acetic acid, [[4-[(2S)-2-(aminocarbonyl)-1-pyrrolidinyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-6-yl]methoxy]-, methyl ester 343632-66-6P, Acetic acid, [[4-[(2S)-2-(aminocarbonyl)-1-pyrrolidinyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-6-yl]methoxy]- 343632-68-8P, 2-Pyrrolidinecarboxamide, 1-[6-(3-methoxyphenyl)-2-(4-pyridinyl)-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (2R)- 343632-74-6P, 3-Piperidinemethanol, 1-[2-(4-pyridinyl)-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (3S)- 343632-75-7P, 3-Piperidinemethanol, 1-[2-(4-pyridinyl)-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (3R)- 343632-84-8P, 3-Pyrrolidinol, 1-(2,6-diphenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-, (3R)- 343632-85-9P, 3-Pyrrolidinol, 1-(2,6-diphenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-, (3S)- 343632-86-0P, 3-Pyrrolidineacetic acid, 1-[6-[(3-chlorophenoxymethyl)-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, methyl ester, (3R)- 343632-87-1P, 3-Pyrrolidineacetic acid,

15 ANSWER 14 OF 31 CAPLUS COPYRIGHT 2007 ACS ON STN (Continued)
acid,
1-[6-((3-chlorophenoxymethyl)-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-
methyl ester, (3R)- 343632-88-2P, 3-Pyrroldineacetamide,
1-[6-((3-chlorophenoxymethyl)-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-,
(3R)- 343632-89-3P, 3-Pyrroldineacetamide, 1-[6-((3-chlorophenoxymethyl)-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-, (3S)-
343632-90-6P, 3-Piperidinemethanol, 1-[6-((3-chlorophenoxymethyl)-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-, (3R)- 343633-24-3P, 2-Pyrroldinecarboxamide, 1-[6-phenyl-2-(4-pyrrolyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-, (2R)- 343639-98-2P, 3-Piperidinemethanol,
1-[6-((3-chlorophenoxymethyl)-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-, (3R)
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity);
SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. and use of substituted 7H-pyrrolo[2,3-b]pyrimidines as selective adenosine A1, A2a and A3 receptor antagonists)
EN 343631-98-1 CAPLUS
CN Acetamide
N-[1-(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-3-piperidinyl]- (9CI) (CA INDEX NAME)



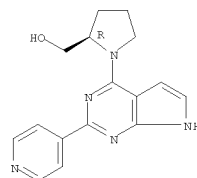
RN 343632-18-8 CAPLUS
CN Propanamide, 3-amino-N-[1-(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-4-piperidinyl]- (9CI) (CA INDEX NAME)



RN 343632-22-4 CAPLUS

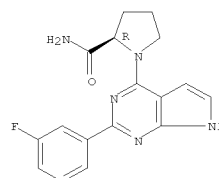
L5 ANSWER 14 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
CN 2-Pyrrolidinemethanol,
1-[2-(4-pyridinyl)-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-
(2R)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 343632-23-5 CAPLUS
CN 2-Pyrrolidinecarboxamide,
1-[2-(3-fluorophenyl)-1H-pyrrolo[2,3-d]pyrimidin-
4-yl]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

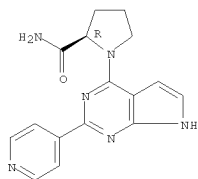


RN 343632-24-6 CAPLUS
CN 2-Pyrrolidinecarboxamide,
1-[2-(4-pyridinyl)-1H-pyrrolo[2,3-d]pyrimidin-4-
yl]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

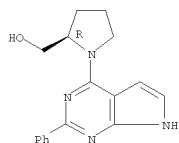
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L5 ANSWER 14 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

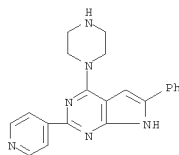


RN 343632-25-7 CAPLUS
CN 2-Pyrrolidinemethanol, 1-(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

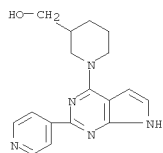


RN 343632-26-8 CAPLUS
CN 1H-Pyrrolo[2,3-d]pyrimidine, 6-phenyl-4-(1-piperazinyl)-2-(4-pyridinyl)- (9CI) (CA INDEX NAME)



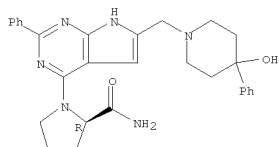
RN 343632-27-9 CAPLUS
CN 2-Pyrrolidinemethanol, 4-hydroxy-1-[2-(4-pyridinyl)-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (2R,4R)- (9CI) (CA INDEX NAME)

L5 ANSWER 14 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



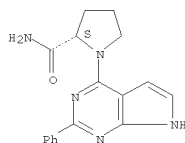
RN 343632-51-9 CAPLUS
CN 2-Pyrrolidinecarboxamide, 1-[6-[(4-hydroxy-4-phenyl-1-piperidinyl)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 343632-52-0 CAPLUS
CN 2-Pyrrolidinecarboxamide, 1-(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

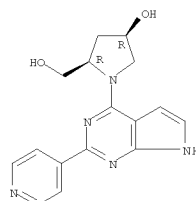


RN 343632-53-1 CAPLUS
CN 2-Pyrrolidinecarboxamide, 1-[6-(methoxymethyl)-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

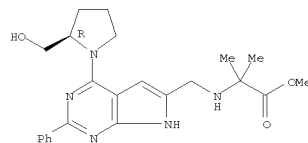
L5 ANSWER 14 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

Absolute stereochemistry.



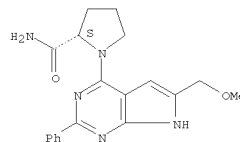
RN 343632-28-0 CAPLUS
CN Alanine, N-[[4-[(2R)-2-(hydroxymethyl)-1-pyrrolidinyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-6-yl]methyl]-2-methyl-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



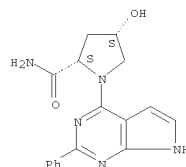
RN 343632-29-1 CAPLUS
CN 3-Piperidinemethanol, 1-[2-(4-pyridinyl)-1H-pyrrolo[2,3-d]pyrimidin-4-yl]- (9CI) (CA INDEX NAME)

L5 ANSWER 14 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



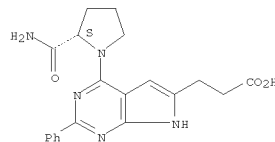
RN 343632-54-2 CAPLUS
CN 2-Pyrrolidinecarboxamide, 4-hydroxy-1-(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-, (2S,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 343632-55-3 CAPLUS
CN 1H-Pyrrolo[2,3-d]pyrimidine-6-propanoic acid, 4-[(2S)-2-(aminocarbonyl)-1-pyrrolidinyl]-2-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

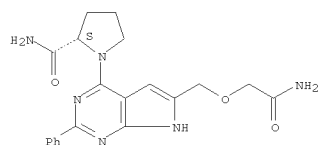


RN 343632-57-5 CAPLUS
CN 2-Pyrrolidinecarboxamide, 1-[6-[(2-amino-2-oxoethoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

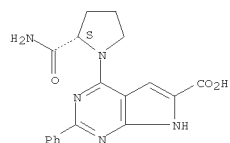
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L5 ANSWER 14 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



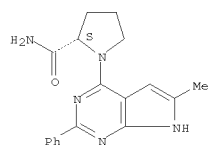
RN 343632-58-6 CAPLUS
CN 1H-Pyrrolo[2,3-d]pyrimidine-6-carboxylic acid,
4-[(2S)-2-(aminocarbonyl)-1-pyrrolidinyl]-2-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 343632-59-7 CAPLUS
CN 2-Pyrrolidinecarboxamide,
1-[6-methyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (2S)- (9CI) (CA INDEX NAME)

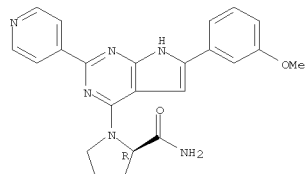
Absolute stereochemistry.



RN 343632-60-0 CAPLUS
CN 2-Pyrrolidinecarboxamide, 1-[6-[(2-hydroxyethoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (2S)- (9CI) (CA INDEX NAME)

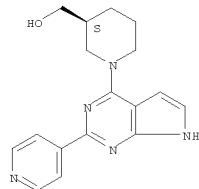
L5 ANSWER 14 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
pyrrolo[2,3-d]pyrimidin-4-yl]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 343632-74-6 CAPLUS
CN 3-Piperidinemethanol,
1-[2-(4-pyridinyl)-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-,
(3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

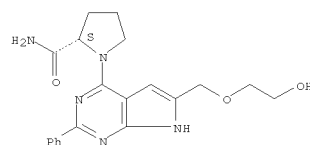


RN 343632-75-7 CAPLUS
CN 3-Piperidinemethanol,
1-[2-(4-pyridinyl)-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-,
(3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

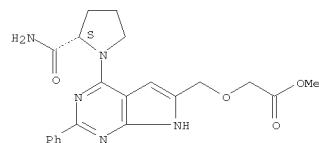
L5 ANSWER 14 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

Absolute stereochemistry.



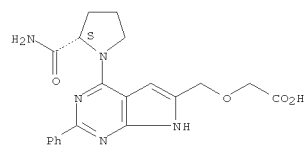
RN 343632-65-5 CAPLUS
CN Acetic acid, [[4-[(2S)-2-(aminocarbonyl)-1-pyrrolidinyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-6-yl]methoxy]-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



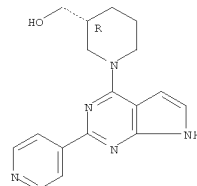
RN 343632-66-6 CAPLUS
CN Acetic acid, [[4-[(2S)-2-(aminocarbonyl)-1-pyrrolidinyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-6-yl]methoxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



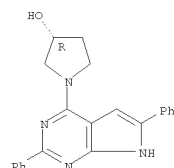
RN 343632-68-8 CAPLUS
CN 2-Pyrrolidinecarboxamide, 1-[6-(3-methoxyphenyl)-2-(4-pyridinyl)-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (2R)- (9CI) (CA INDEX NAME)

L5 ANSWER 14 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



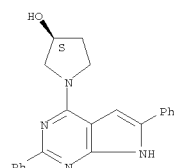
RN 343632-84-8 CAPLUS
CN 3-Pyrrolidinol, 1-(2,6-diphenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-, (3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 343632-85-9 CAPLUS
CN 3-Pyrrolidinol, 1-(2,6-diphenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

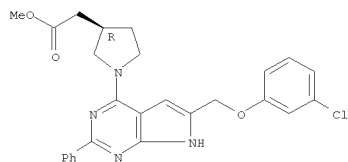


RN 343632-86-0 CAPLUS
CN 3-Pyrrolidineacetic acid, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (2R)- (9CI) (CA INDEX NAME)

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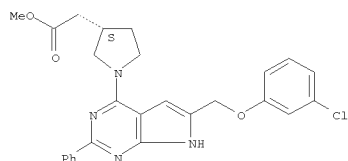
L5 ANSWER 14 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
RN pyrrolo[2,3-d]pyrimidin-4-yl]-, methyl ester, (3R)- (9CI) (CA INDEX
NAME)

Absolute stereochemistry.



RN 343632-87-1 CAPLUS
CN 3-Pyrrolidineacetic acid, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, methyl ester, (3S)- (9CI) (CA INDEX
NAME)

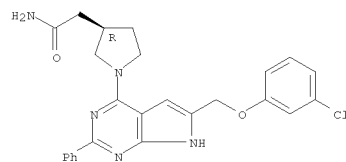
Absolute stereochemistry.



RN 343632-88-2 CAPLUS
CN 3-Pyrrolidineacetamide, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (3R)- (9CI) (CA INDEX NAME)

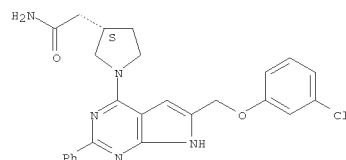
Absolute stereochemistry.

L5 ANSWER 14 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



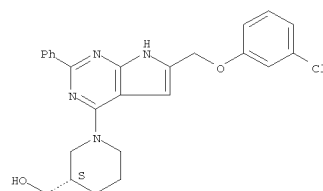
RN 343632-89-3 CAPLUS
CN 3-Piperidineacetamide, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



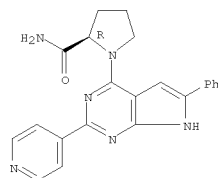
RN 343632-90-6 CAPLUS
CN 3-Piperidineethanol, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



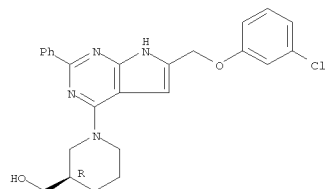
L5 ANSWER 14 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
RN 343633-24-9 CAPLUS
CN 2-Pyrrolidinecarboxamide, 1-[6-phenyl-2-(4-pyridinyl)-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 343969-98-2 CAPLUS
CN 3-Piperidineethanol, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

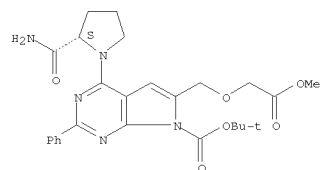


IT 343632-56-4P, 7H-Pyrrolo[2,3-d]pyrimidine-7-carboxylic acid, 4-[(2S)-2-(aminocarbonyl)-1-pyrrolidinyl]-6-[(2-methoxy-2-oxoethoxy)methyl]-2-phenyl-, 1,1-dimethylethyl ester 343633-10-3P, 1H-Pyrrolo[2,3-d]pyrimidine-6-propanoic acid, 4-[(2S)-2-(aminocarbonyl)-1-pyrrolidinyl]-2-phenyl-, 1,1-dimethylethyl ester (preparation and use of substituted 7H-pyrrolo[2,3-b]pyrimidines as selective adenosine A1, A2a and A3 receptor antagonists)
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

RN 343632-56-4 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine-7-carboxylic acid, 4-[(2S)-2-(aminocarbonyl)-1-pyrrolidinyl]-6-[(2-methoxy-2-oxoethoxy)methyl]-2-phenyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

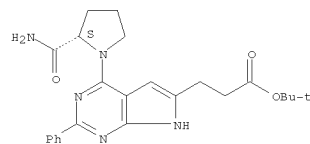
Absolute stereochemistry.

L5 ANSWER 14 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

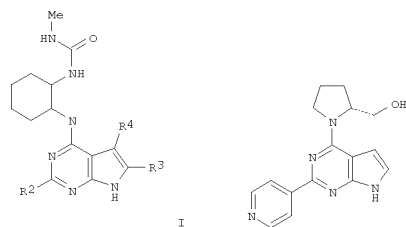


RN 343633-10-3 CAPLUS
CN 1H-Pyrrolo[2,3-d]pyrimidine-6-propanoic acid, 4-[(2S)-2-(aminocarbonyl)-1-pyrrolidinyl]-2-phenyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



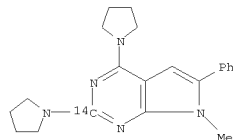
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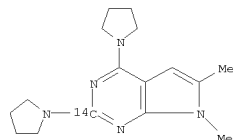
10816329.trn

L5 ANSWER 14 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
 AB Title compds. I and analogs [R2 = 5-6 membered aromatic ring; R3-4 = H, alkyl] were prepared Over 100 examples were provided. Intermediate 4-chloro-7H-pyrrolo[2,3-d]pyrimidines were prepared by several routes from appropriately substituted cyano-pyrroles. Thus, 4-chloro-2-(4-pyridyl)-7H-pyrrolo[2,3-d]pyrimidine hydrochloride was reacted with D-prolinol (2.3 mol equiv) in DMSO at 120° for 18 h to yield II in 13% yield after purification Compound I [R2 = Ph; R3-4 = Me] exhibited 10-fold selectivity for binding to the adenosine A1 receptor than to A2a, A2b or A3 receptors. ClogP values were determined for selected example compds. I are useful for the treatment of COPD, allergic rhinitis, etc.

L5 ANSWER 15 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2001:743994 CAPLUS
 DOCUMENT NUMBER: 136:134731
 TITLE: Synthesis of several isotopically labeled pyrrolo[1,3-d]pyrimidine analogs
 AUTHOR(S): Easter, John A.; Stolle, Wayne T.
 CORPORATE SOURCE: Global Drug Metabolism, Pharmacia Corporation, Kalamazoo, MI, 49007, USA
 SOURCE: Journal of Labelled Compounds & Radiopharmaceuticals (2001), 44(11), 797-810
 CODEN: JLCRD4; ISSN: 0362-4803
 PUBLISHER: John Wiley & Sons Ltd.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 136:134731
 IT 392245-85-1P 392245-91-9P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of isotopically labeled pyrrolopyrimidines)
 RN 392245-85-1 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine-2-14C, 6,7-dimethyl-2,4-di-1-pyrrolidinyl-7-methyl-6-phenyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

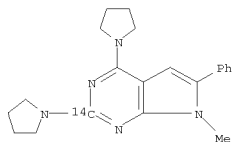


RN 392245-91-9 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine-2-14C, 6,7-dimethyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)



IT 392245-86-2P 392245-87-3P

L5 ANSWER 15 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of isotopically labeled pyrrolopyrimidines)
 RN 392245-86-2 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine-2-14C, 6,7-dimethyl-2,4-di-1-pyrrolidinyl-7-methyl-6-phenyl-2,4-di-1-pyrrolidinyl-, monomethanesulfonate (9CI) (CA INDEX NAME)
 CM 1
 CRN 392245-85-1
 CMF C21 H25 N5

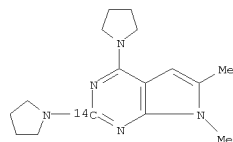


CM 2
 CRN 75-75-2
 CMF C H4 O3 S



RN 392245-87-3 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine-2-14C, 6,7-dimethyl-2,4-di-1-pyrrolidinyl-, monohydrochloride (9CI) (CA INDEX NAME)

L5 ANSWER 15 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



● HCl

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Four members of a novel class of pyrrolo[2,3-d]pyrimidines that show potential for the treatment of asthma and neurodegenerative disorders, have been prepared with radioisotope labels and in one case with multiple stable isotope labels for ADME studies as part of the drug development process. The syntheses utilize an isotopically labeled 2,4,6-trisubstituted pyrimidine as a common building block, readily prepared from isotopically labeled urea. Cyclizations of the pyrimidine with bromo-ketones generate the ring fused pyrrolo[2,3-d]pyrimidines with elegant efficiency as demonstrated by the preparation of structures I (R = Ph, Me) as the mesylate or HCl salt, resp., II, and III (X = 12C, Y = 14C, Z = 14N; X = Y = 13C, Z = 15N) as the HCl salts.
 REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
 FORMAT

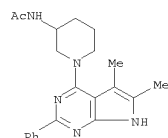
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L5 ANSWER 16 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2001:416773 CAPLUS
 DOCUMENT NUMBER: 135:46190
 TITLE: Synthesis and use of substituted pyrrolo[2,3-b]pyrimidines as selective adenosine A1, A2a and A3 receptor antagonists
 INVENTOR(S): Castelhana, Arlindo L.; McKibben, Bryan; Witter, David
 J.
 PATENT ASSIGNEE(S): Osi Pharmaceuticals, Inc., USA
 SOURCE: PCT Int. Appl., 368 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 4
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001039777	A1	20010607	WO 2000-US32702	20001201
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6686366	B1	20040203	US 1999-454075	19991202
US 6878716	B1	20050412	US 1999-454074	19991202
CA 2393179	A1	20010607	CA 2000-2393179	20001201
EP 1246623	A1	20021009	EP 2000-988011	20001201
EP 1246623	B1	20060809		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2003519102	T	20030617	JP 2001-541509	20001201
AU 784878	B2	20060713	AU 2001-24270	20001201
PRIORITY APPLN. INFO.:				
US 1999-454074 A 19991202				
US 1999-454075 A 19991202				
US 1999-454254 A 19991202				
US 1998-87702P P 19980602				
US 1999-123216P P 19990308				
US 1999-126527P P 19990326				
WO 1999-US12135 A2 19990601				
WO 2000-US32702 W 20001201				

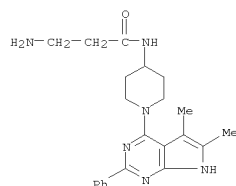
OTHER SOURCE(S): MARPAT 135:46190

L5 ANSWER 16 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
 IT 343631-98-1P 343632-18-8P 343632-22-4P
 343632-23-5P 343632-24-6P 343632-25-7P
 343632-26-8P 343632-27-9P 343632-28-0P
 343632-29-1P 343632-34-8P 343632-42-8P
 343632-47-3P 343632-48-4P 343632-49-5P
 343632-51-9P 343632-52-0P 343632-53-1P
 343632-54-2P 343632-55-3P 343632-57-5P
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 343632-85-9P 343632-86-0P 343632-87-1P
 343632-88-2P 343632-89-3P 343632-90-6P
 343633-24-9P 343639-98-2P
 RI: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation and use of substituted 7H-pyrrolo[2,3-b]pyrimidines as selective adenosine A1, A2a and A3 receptor antagonists)
 RN 343631-98-1 CAPLUS
 CN Acetamide,
 N-[1-(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-3-piperidinyl]- (9CI) (CA INDEX NAME)



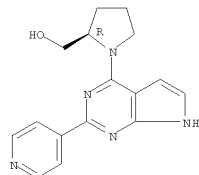
RN 343632-18-8 CAPLUS
 CN Propanamide, 3-amino-N-[1-(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-4-piperidinyl]- (9CI) (CA INDEX NAME)

L5 ANSWER 16 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



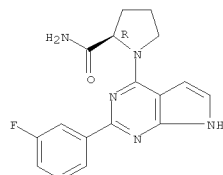
RN 343632-22-4 CAPLUS
 CN 2-Pyrrolidinecarboxamide,
 1-[2-(4-pyridinyl)-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 343632-23-5 CAPLUS
 CN 2-Pyrrolidinecarboxamide,
 1-[2-(3-fluorophenyl)-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (2R)- (9CI) (CA INDEX NAME)

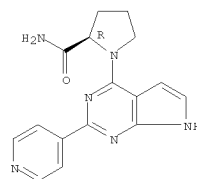
Absolute stereochemistry.



L5 ANSWER 16 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

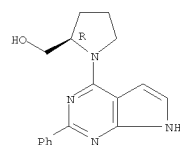
RN 343632-24-6 CAPLUS
 CN 2-Pyrrolidinecarboxamide,
 1-[2-(4-pyridinyl)-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

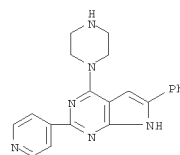


RN 343632-25-7 CAPLUS
 CN 2-Pyrrolidinecarboxamide, 1-(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 343632-26-8 CAPLUS
 CN 1H-Pyrrolo[2,3-d]pyrimidine, 6-phenyl-4-(1-piperazinyl)-2-(4-pyridinyl)- (9CI) (CA INDEX NAME)

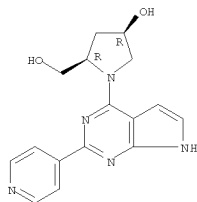


RN 343632-27-9 CAPLUS

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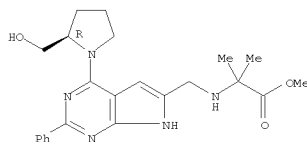
L5 ANSWER 16 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
 CN 2-Pyrrolidinemethanol, 4-hydroxy-1-[2-(4-pyridinyl)-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (2R,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



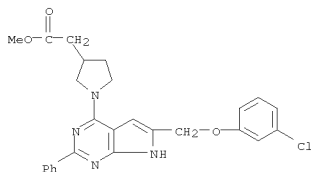
RN 343632-28-0 CAPLUS
 CN Alanine, N-[[4-[(2R)-2-(hydroxymethyl)-1-pyrrolidinyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-6-yl]methyl]-2-methyl-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

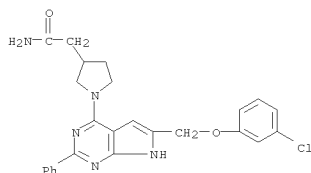


RN 343632-29-1 CAPLUS
 CN 3-Piperidinemethanol, 1-[2-(4-pyridinyl)-1H-pyrrolo[2,3-d]pyrimidin-4-yl]- (9CI) (CA INDEX NAME)

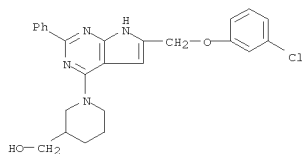
L5 ANSWER 16 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 343632-48-4 CAPLUS
 CN 3-Pyrrolidineacetamide, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]- (9CI) (CA INDEX NAME)



RN 343632-49-5 CAPLUS
 CN 3-Piperidinemethanol, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]- (9CI) (CA INDEX NAME)

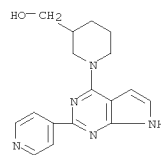


RN 343632-51-9 CAPLUS
 CN 2-Pyrrolidinecarboxamide, 4-hydroxy-1-(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-, (2R)- (9CI) (CA INDEX NAME)

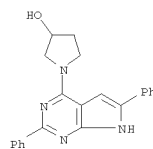
Absolute stereochemistry.

Page 29

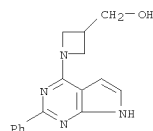
L5 ANSWER 16 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 343632-34-8 CAPLUS
 CN 3-Pyrrolidinol, 1-(2,6-diphenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)- (9CI) (CA INDEX NAME)

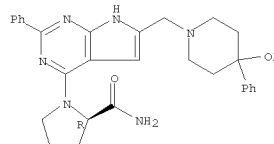


RN 343632-42-8 CAPLUS
 CN 3-Azetidinemethanol, 1-(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)- (9CI) (CA INDEX NAME)



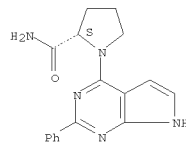
RN 343632-47-3 CAPLUS
 CN 3-Pyrrolidineacetic acid, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, methyl ester (9CI) (CA INDEX NAME)

L5 ANSWER 16 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



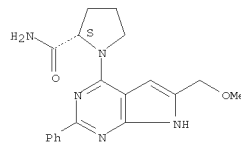
RN 343632-52-0 CAPLUS
 CN 2-Pyrrolidinecarboxamide, 1-(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 343632-53-1 CAPLUS
 CN 2-Pyrrolidinecarboxamide, 1-[6-(methoxymethyl)-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

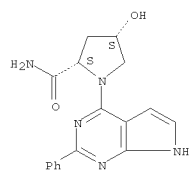


RN 343632-54-2 CAPLUS
 CN 2-Pyrrolidinecarboxamide, 4-hydroxy-1-(2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-, (2S,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

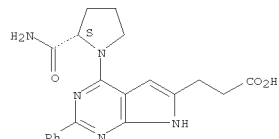
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L5 ANSWER 16 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



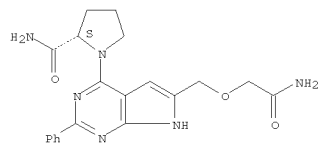
RN 343632-55-3 CAPLUS
CN 1H-Pyrrolo[2,3-d]pyrimidine-6-propanoic acid,
4-[(2S)-2-(aminocarbonyl)-1-pyrrolidinyl]-2-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 343632-57-5 CAPLUS
CN 2-Pyrrolidinecarboxamide, 1-[6-[(2-amino-2-oxoethoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (2S)- (9CI) (CA INDEX NAME)

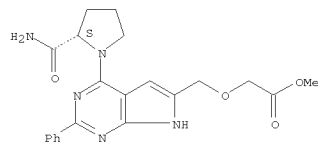
Absolute stereochemistry.



RN 343632-58-6 CAPLUS
CN 1H-Pyrrolo[2,3-d]pyrimidine-6-carboxylic acid,
4-[(2S)-2-(aminocarbonyl)-1-pyrrolidinyl]-2-phenyl- (9CI) (CA INDEX NAME)

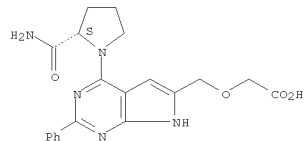
L5 ANSWER 16 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
CN Acetic acid, [[4-[(2S)-2-(aminocarbonyl)-1-pyrrolidinyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-6-yl]methoxy]-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



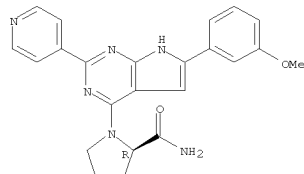
RN 343632-66-6 CAPLUS
CN Acetic acid, [[4-[(2S)-2-(aminocarbonyl)-1-pyrrolidinyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-6-yl]methoxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 343632-68-8 CAPLUS
CN 2-Pyrrolidinecarboxamide, 1-[6-(3-methoxyphenyl)-2-(4-pyridinyl)-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

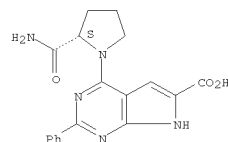


RN 343632-74-6 CAPLUS
CN 3-Piperidinecarboxamide, 1-[2-(4-pyridinyl)-1H-pyrrolo[2,3-d]pyrimidin-4-yl]- (9CI) (CA INDEX NAME)

Page 30

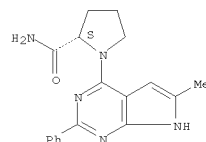
L5 ANSWER 16 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
pyrrolidinyl]-2-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



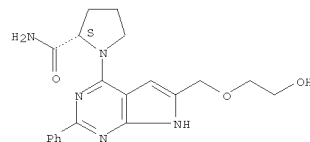
RN 343632-59-7 CAPLUS
CN 2-Pyrrolidinecarboxamide, 1-[6-methyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 343632-60-0 CAPLUS
CN 2-Pyrrolidinecarboxamide, 1-[6-[(2-hydroxyethoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (2S)- (9CI) (CA INDEX NAME)

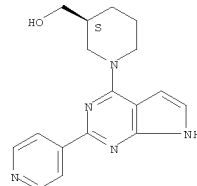
Absolute stereochemistry.



RN 343632-65-5 CAPLUS

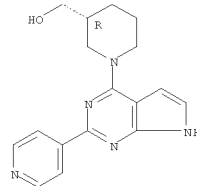
L5 ANSWER 16 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 343632-75-7 CAPLUS
CN 3-Piperidinecarboxamide, 1-[2-(4-pyridinyl)-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

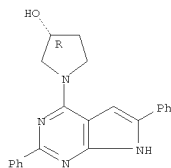


RN 343632-84-8 CAPLUS
CN 3-Pyrrolidinol, 1-(2,6-diphenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-, (3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

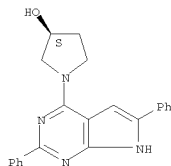
10816329.trn

L5 ANSWER 16 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



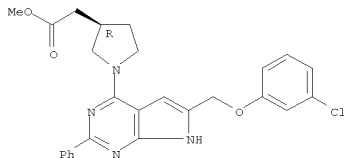
RN 343632-85-9 CAPLUS
CN 3-Pyrrolidinol, 1-[(2,6-diphenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

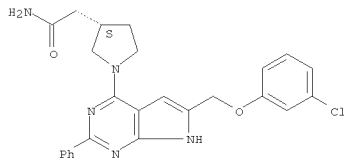


RN 343632-86-0 CAPLUS
CN 3-Pyrrolidineacetic acid, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, methyl ester, (3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

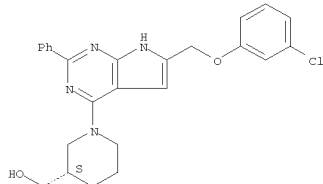


L5 ANSWER 16 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



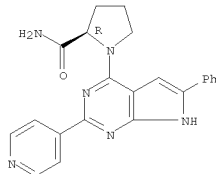
RN 343632-90-6 CAPLUS
CN 3-Piperidinemethanol, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 343633-24-9 CAPLUS
CN 2-Pyrrolidinecarboxamide, 1-[6-phenyl-2-(4-pyridinyl)-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

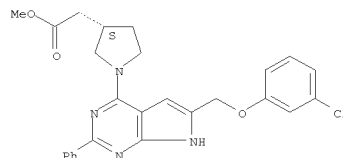


RN 343969-98-2 CAPLUS
CN 3-Piperidinemethanol, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (3R)- (9CI) (CA INDEX NAME)

L5 ANSWER 16 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

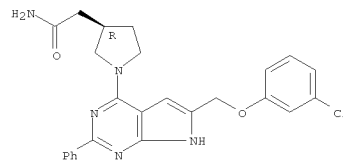
RN 343632-87-1 CAPLUS
CN 3-Pyrrolidineacetic acid, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, methyl ester, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 343632-88-2 CAPLUS
CN 3-Pyrrolidineacetamide, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

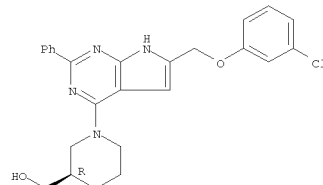


RN 343632-89-3 CAPLUS
CN 3-Pyrrolidineacetamide, 1-[6-[(3-chlorophenoxy)methyl]-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl]-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

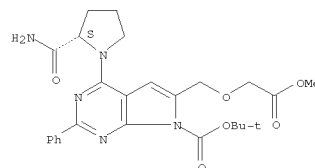
L5 ANSWER 16 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

Absolute stereochemistry.



IT 343632-56-4P 343633-10-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and use of substituted 7H-pyrrolo[2,3-b]pyrimidines as selective adenosine A1, A2a and A3 receptor antagonists)
RN 343632-56-4 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine-7-carboxylic acid, 4-[(2S)-2-(aminocarbonyl)-1-pyrrolidinyl]-6-[(2-methoxy-2-oxoethoxy)methyl]-2-phenyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

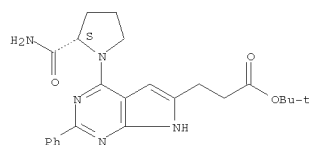


RN 343633-10-3 CAPLUS
CN 1H-Pyrrolo[2,3-d]pyrimidine-6-propanoic acid, 4-[(2S)-2-(aminocarbonyl)-1-pyrrolidinyl]-2-phenyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

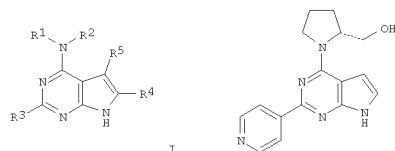
Absolute stereochemistry.

10816329.trn

L5 ANSWER 16 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



GI

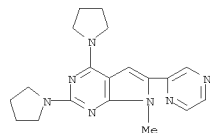


III

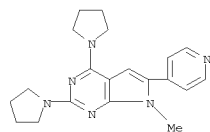
AB The synthesis of compds. I, their binding to adenosine receptors and use are described [wherein; R1, R2 = H, (un)substituted alkyl or NR1R2 = (un)substituted 4-8 membered ring; R3 = (un)substituted 4-6 membered (aromatic) ring; R4, R5 = H, (un)substituted alkyl, aryl (with some exceptions)]. Over 100 examples are provided. Intermediate 4-chloro-7H-pyrrolo[2,3-d]pyrimidines were prepared by several routes from appropriately substituted cyano-pyrroles. Thus, 4-chloro-2-(4-pyridyl)-7H-pyrrolo[2,3-d]pyrimidine hydrochloride was reacted with D-prolinol (2.3 mol equiv) in DMSO at 120°C for 18 h to yield III in 13% yield after purification. Compound I [R1 = AcNHCH2CH2; R2 = H; R3 = Ph; R4, R5 = Me; II] exhibited selective binding to adenosine receptor A1 with IC50 = 82.8 nM. Compound II also had Ki = 9.8 nM (vs. Ki = 7.1 for control ligand 8-cyclopentyl-1,3-dipropylxanthine (DPCPX)). Pyrimidine III binds 5 times more selectively to adenosine receptor A2a than A1, A2b or A3 (no data). Compound I [R1 = AcNH(CH2)4; R2 = H; R3 = Ph; R4, R5 = Me] is 10 times more selective for A3 than the other receptor subtypes. ClogP (calculated partition coefficient between octanol and H2O) values were determined for selected example compds. Claimed uses of I includes administration of a systemic

L5 ANSWER 17 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:88179 CAPLUS
DOCUMENT NUMBER: 134:311171
TITLE: Synthesis of 2,4-diaminopyrrolo[2,3-d]pyrimidines via thermal Fischer indolization. Pyrazole formation with ytterbium triflate catalysis
Bundy, Gordon L.; Schwartz, Theresa M.; Palmer, John R.; Banitt, Lee S.; Watt, William
CORPORATE SOURCE: Combinatorial and Medicinal Chemistry, Pharmacia and Upjohn, Kalamazoo, MI, 49001, USA
SOURCE: Journal of Heterocyclic Chemistry (2000), 37(6), 1471-1477
CODEN: JHTCAD; ISSN: 0022-152X
PUBLISHER: HeteroCorporation
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 134:311171
IT 335149-83-2P 335149-84-3P
RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)
RN 335149-83-2 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-methyl-6-pyrazinyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)



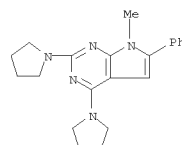
RN 335149-84-3 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-methyl-6-(4-pyridinyl)-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)



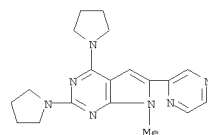
IT 157012-18-5P, PNU 87663 335149-96-7P
335149-97-8P
RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of (amino)pyrrolo[2,3-d]pyrimidines via thermal Fischer indolization and pyrazole formation with ytterbium triflate catalysis)
RN 157012-18-5 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-methyl-6-phenyl-2,4-di-1-pyrrolidinyl-

L5 ANSWER 16 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
formulation (i.e. ophthalmic) for the treatment of a disease assocd. with A1, A2a, and A3 adenosine receptors in a subject.
REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L5 ANSWER 17 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
(9CI) (CA INDEX NAME)

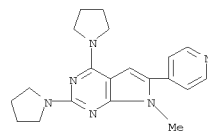


RN 335149-96-7 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-methyl-6-pyrazinyl-2,4-di-1-pyrrolidinyl-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 335149-97-8 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-methyl-6-(4-pyridinyl)-2,4-di-1-pyrrolidinyl-, dihydrochloride (9CI) (CA INDEX NAME)



● 2 HCl

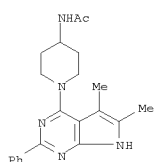
AB The high-yield synthesis of the 2,4-diaminopyrrolo[2,3-d]pyrimidine (PNU-87663) via a Bischler-like alkylation-cyclization sequence was reported earlier. Herein an alternative synthesis of this potent

L5 ANSWER 17 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
antioxidant and several analogs based on the thermal Fischer
indolization,
starting from hydrazino substituted pyrimidines is described. In several
cases where the thermal Fischer indolization failed, attempts to catalyze
the reaction with Lewis acids, esp. ytterbium triflate, led to the
surprising and unprecedented formation of pyrrolo[3,4-d]pyrimidines,
e.g.
1-methyl-3-phenyl-4,6-di-1-pyrrolidinyl-1H-pyrrolo[3,4-d]pyrimidine,
with
the loss of the elements of methane. Mechanistic details of this
transformation remain to be investigated. A soln. of 4-(1-
methylhydrazino)-2,6-di-1-pyrrolidinylpyrimidine (1.91 mmol),
4-(1-imidazolyl)acetophenone (5.59 mmol), ytterbium
trifluoromethanesulfonate (0.19 mmol) in decalin (50 mL) was heated at
reflux under nitrogen for 18 h. Removal of solvent and purifn. by
chromatog. on silica gel gave
3-[4-(1H-imidazol-1-yl)phenyl]-1-methyl-4,6-
di-1-pyrrolidinyl-1H-pyrrolo[4,4-d]pyrimidine in 25% yield.
REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR
THIS
FORMAT RECORD. ALL CITATIONS AVAILABLE IN THE RE

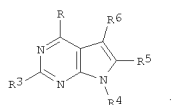
L5 ANSWER 18 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:783937 CAPLUS
DOCUMENT NUMBER: 132:22973
TITLE: Preparation of pyrrolo[2,3-d]pyrimidines as adenosine
receptor antagonists
INVENTOR(S): Castelhana, Arlindo L.; McKibben, Bryan; Witter,
David
PATENT ASSIGNEE(S): J.
SOURCE: Cadus Pharmaceutical Corp., USA
PCT Int. Appl., 169 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9962518	A1	19991209	WO 1999-US12135	19990601
W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW			
RW:	GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
CA 2334200	A1	19991209	CA 1999-2334200	19990601
AU 9942265	A	19991220	AU 1999-42265	19990601
AU 763658	B2	20030731		
BR 9911612	A	20010206	BR 1999-11612	19990601
EP 1082120	A1	20010314	EP 1999-926107	19990601
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			
TR 200003513	T2	20010621	TR 2000-200003513	19990601
HU 200103836	A2	20020228	HU 2001-3836	19990601
JP 2002516861	T	20020611	JP 2000-551774	19990601
NZ 508314	A	20040326	NZ 1999-508314	19990601
TW 242435	B	20051101	TW 1999-88109094	19990728
US 6686366	B1	20040203	US 1999-454075	19991202
US 6878716	B1	20050412	US 1999-454074	19991202
NO 200006090	A	20010131	NO 2000-6090	20001130
US 2002028782	A1	20020307	US 2000-728229	20001201
US 6800633	B2	20041005		
US 2005043332	A1	20050224	US 2004-816329	20040331
PRIORITY APPLN. INFO.:			US 1998-87702P	P 19980602
			US 1999-123216P	P 19990308
			US 1999-126527P	P 19990326
			WO 1999-US12135	W 19990601
			US 2000-728229	A3 20001201

L5 ANSWER 18 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
OTHER SOURCE(S): MARPAT 132:22973
IT 251946-53-9P
RL: BAC (Biological activity or effector, except adverse); BSU
(Biological
study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of pyrrolo[2,3-d]pyrimidines as adenosine receptor
antagonists)
RN 251946-53-9 CAPLUS
CN Acetamide,
N-(5,6-dimethyl-2-phenyl-1H-pyrrolo[2,3-d]pyrimidin-4-yl)-4-
piperidinyl]- (9CI) (CA INDEX NAME)

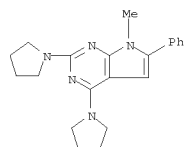


GI

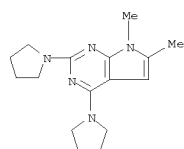


AB Title compds. [I; R = NR1R2; R1-R4 = H, alkyl, aryl, etc.; NR1R2 = heterocyclyl; R5, R6 = H, halo, alkyl, aryl, etc.; R4R5, R5R6 = atoms to complete a ring] were prepared. Thus, 2-amino-3-cyano-4,5-dimethyl-1-(1-phenylethyl)pyrrole was N-benzoylated and the product cyclized to give, after deprotection and chlorination, I (R3 = Ph, R4 = H, R5 = R6 = Me) (II);
R = Cl) which was aminated by trans-4-hydroxycyclohexylamine to give II (R = trans-4-hydroxycyclohexylamino). Data for biol. activity of I were given.
REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR
THIS
FORMAT RECORD. ALL CITATIONS AVAILABLE IN THE RE

L5 ANSWER 19 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:166122 CAPLUS
DOCUMENT NUMBER: 130:346769
TITLE: Novel, highly lipophilic antioxidants readily diffuse
across the blood-brain barrier and access
intracellular sites
Sawada, Geri A.; Williams, Lawrence R.; Lutzke, Barry
S.; Raub, Thomas J.
CORPORATE SOURCE: Drug Absorption and Transport, Pharmacia and Upjohn,
Inc., Kalamazoo, MI, USA
SOURCE: Journal of Pharmacology and Experimental Therapeutics
(1999), 288(3), 1327-1333
CODEN: JPETAB; ISSN: 0022-3565
PUBLISHER: American Society for Pharmacology and Experimental
Therapeutics
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 157012-18-5, PNU-87663 157013-32-6, PNU 89843
RL: BPR (Biological process); BSU (Biological study, unclassified); THU
(Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(lipophilic pyrrolopyrimidine antioxidants diffusion across
blood-brain
barrier and pharmacokinetics in CNS and other tissues)
RN 157012-18-5 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-methyl-6-phenyl-2,4-di-1-pyrrolidinyl-
(9CI) (CA INDEX NAME)



RN 157013-32-6 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 6,7-dimethyl-2,4-di-1-pyrrolidinyl- (9CI)
(CA INDEX NAME)

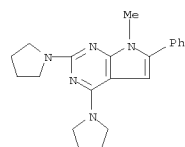


AB In an accompanying article, an in vitro assay for permeability predicts
that membrane-protective, antioxidant 2,4-diamino-pyrrolo[2,3-

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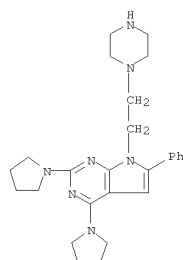
L5 ANSWER 19 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
 djpyrimidines should have improved blood-brain barrier (BBB) permeation over previously described lipophilic antioxidants. Using a first-pass extrn. method and brain/plasma quantification, we show here that two of the pyrrolopyrimidines, one of which is markedly less permeable, readily partition into rat brain. The efficiency of extrn. was dependent on serum protein binding, and in situ efflux confirms the in vitro data showing that PNU-87663 is retained in brain longer than PNU-89843. By exploiting inherent fluorescence properties of PNU-87663, its distribution within brain and within cells in culture was demonstrated using confocal scanning laser microscopy. PNU-87663 rapidly partitioned into the cell membrane and equilibrates with cytoplasmic compartments via passive diffusion. Although partitioning of PNU-87663 favors intracytoplasmic lipid storage droplets, the compd. was readily exchangeable as shown by efflux of compd. from cells to buffer when protein was present. The results demonstrated that pyrrolopyrimidines were well suited for quickly accessing target cells within the central nervous system as well as in other target tissues.
 REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE
 FORMAT

L5 ANSWER 20 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1999:166121 CAPLUS
 DOCUMENT NUMBER: 131:181
 TITLE: Increased lipophilicity and subsequent cell partitioning decrease passive transcellular diffusion of novel, highly lipophilic antioxidants
 AUTHOR(S): Sawada, Geri A.; Barsuhn, Craig L.; Lutzke, Barry S.; Houghton, Michael E.; Padbury, Guy E.; Ho, Norman F. H.; Raub, Thomas J.
 CORPORATE SOURCE: Drug Absorption and Transport, Pharmacia and Upjohn, Inc., Kalamazoo, MI, USA
 SOURCE: Journal of Pharmacology and Experimental Therapeutics (1999), 288(3), 1317-1326
 CODEN: JPETAB; ISSN: 0022-3565
 PUBLISHER: American Society for Pharmacology and Experimental Therapeutics
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 IT 157012-18-5 157012-32-3 157012-34-5
 157012-38-9 157012-41-4 157012-46-9
 157012-47-0 157012-48-1 157012-56-1
 157012-58-3 157012-61-8 157012-75-4
 157012-84-5 157012-85-6 157012-89-0
 157012-90-3 157012-91-4 157013-30-4
 157013-31-5 157013-32-6 157013-33-7
 157013-34-8 225115-52-6 225115-77-5
 225116-01-8
 RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)
 (increased lipophilicity and subsequent cell partitioning decrease passive transcellular diffusion of novel, highly lipophilic antioxidants)
 RN 157012-18-5 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-methyl-6-phenyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

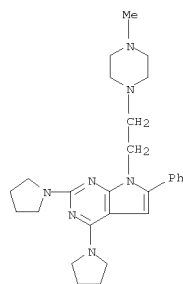


RN 157012-32-3 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine, 6-phenyl-7-[2-(1-piperazinyl)ethyl]-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

L5 ANSWER 20 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

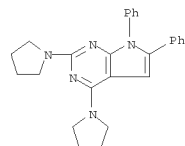


RN 157012-34-5 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-[2-(4-methyl-1-piperazinyl)ethyl]-6-phenyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

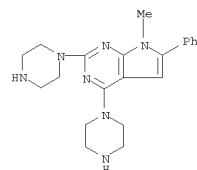


RN 157012-38-9 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine, 6,7-diphenyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

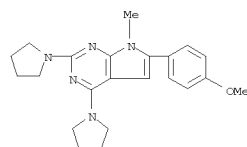
L5 ANSWER 20 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 157012-41-4 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-methyl-6-phenyl-2,4-di-1-piperazinyl- (9CI) (CA INDEX NAME)



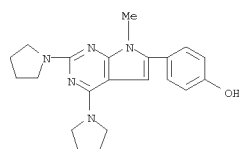
RN 157012-46-9 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine, 6-(4-methoxyphenyl)-7-methyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)



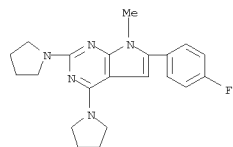
RN 157012-47-0 CAPLUS
 CN Phenol, 4-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-6-yl)- (9CI) (CA INDEX NAME)

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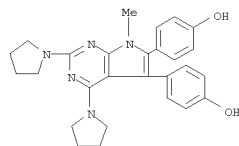
L5 ANSWER 20 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 157012-48-1 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 6-(4-fluorophenyl)-7-methyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)



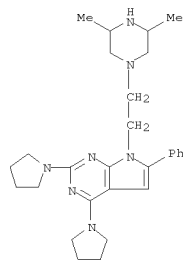
RN 157012-56-1 CAPLUS
CN Phenol, 4,4'-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-5,6-diyl)bis- (9CI) (CA INDEX NAME)



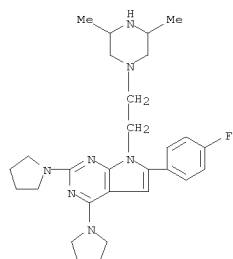
RN 157012-58-3 CAPLUS
CN Phenol, 4,4'-(2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-6,7-diyl)bis- (9CI) (CA INDEX NAME)

L5 ANSWER 20 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

RN 157012-84-5 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-[2-(3,5-dimethyl-1-piperazinyl)ethyl]-6-phenyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

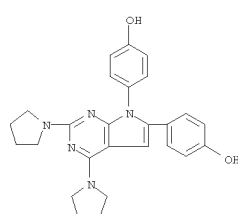


RN 157012-85-6 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-[2-(3,5-dimethyl-1-piperazinyl)ethyl]-6-(4-fluorophenyl)-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

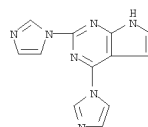


RN 157012-89-0 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 6-(4-methylphenyl)-7-[2-(1-piperazinyl)ethyl]-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

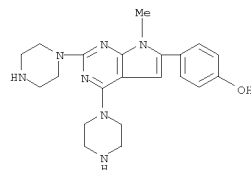
L5 ANSWER 20 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



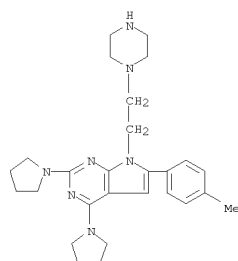
RN 157012-61-8 CAPLUS
CN 1H-Pyrrolo[2,3-d]pyrimidine, 2,4-di-1H-imidazol-1-yl- (9CI) (CA INDEX NAME)



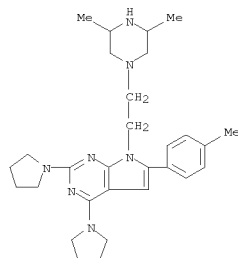
RN 157012-75-4 CAPLUS
CN Phenol, 4-(7-methyl-2,4-di-1-piperazinyl-7H-pyrrolo[2,3-d]pyrimidin-6-yl)- (9CI) (CA INDEX NAME)



L5 ANSWER 20 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



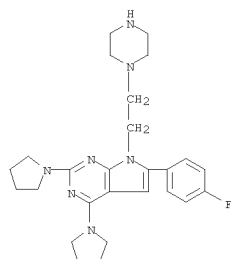
RN 157012-90-3 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-[2-(3,5-dimethyl-1-piperazinyl)ethyl]-6-(4-methylphenyl)-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)



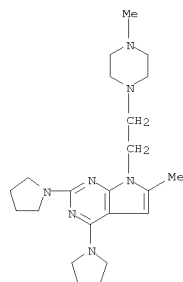
RN 157012-91-4 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 6-(4-fluorophenyl)-7-[2-(1-piperazinyl)ethyl]-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

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L5 ANSWER 20 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



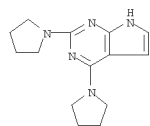
RN 157013-30-4 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine,
6-methyl-7-[(2-(4-methyl-1-piperazinyl)ethyl)-
2,4-di-1-pyrrolidinyl]- (9CI) (CA INDEX NAME)



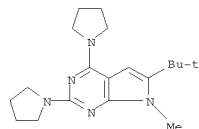
RN 157013-31-5 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine,
6-methyl-7-[(2-(1-piperazinyl)ethyl)-2,4-di-1-
pyrrolidinyl]- (9CI) (CA INDEX NAME)

L5 ANSWER 20 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

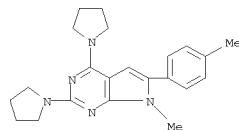
RN 157013-34-8 CAPLUS
CN 1H-Pyrrolo[2,3-d]pyrimidine, 2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)



RN 225115-52-6 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 6-(1,1-dimethylethyl)-7-methyl-2,4-di-1-
pyrrolidinyl- (9CI) (CA INDEX NAME)

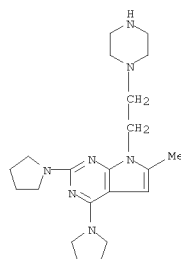


RN 225115-77-5 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-methyl-6-(4-methylphenyl)-2,4-di-1-
pyrrolidinyl- (9CI) (CA INDEX NAME)

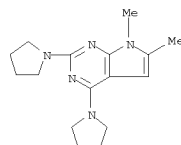


RN 225116-01-8 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-methyl-6-phenyl-2-(1-pyrrolidinyl)-4-(1H-
pyrrol-1-yl)- (9CI) (CA INDEX NAME)

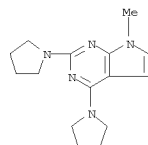
L5 ANSWER 20 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



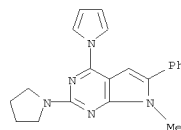
RN 157013-32-6 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 6,7-dimethyl-2,4-di-1-pyrrolidinyl- (9CI)
(CA INDEX NAME)



RN 157013-33-7 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-methyl-2,4-di-1-pyrrolidinyl- (9CI) (CA
INDEX NAME)



L5 ANSWER 20 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



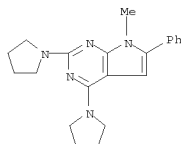
AB Oxidative stress is considered a cause or propagator of acute and chronic disorders of the central nervous system. Novel 2,4-diamino-pyrrolo[2,3-d]pyrimidines are potent inhibitors of iron-dependent lipid peroxidn.,

are cytoprotective in cell culture models of oxidative injury, and are neuroprotective in brain injury and ischemia models. The selection of lead candidates from this series required that they reach target cells deep within brain tissue in efficacious amts. after oral dosing. A homologous series of 26 highly lipophilic pyrrolopyrimidines was examined using cultured cell monolayers to understand the structure-permeability relationship and to use this information to predict brain penetration and residence time. Pyrrolopyrimidines were shown to be a more permeable structural class of membrane-interactive antioxidants where transepithelial permeability was inversely related to lipophilicity or to cell partitioning. Pyrrole substitutions influence cell partitioning where bulky hydrophobic groups increased partitioning and decreased permeability and smaller hydrophobic groups and more hydrophilic groups, especially those capable of weak hydrogen bonding, decreased partitioning, and increased permeability. Transmonolayer diffusion for these membrane-interactive antioxidants was limited mostly by desorption from the receiver-side membrane into the buffer. Thus, in this case, these in vitro cell monolayer models do not adequately mimic the in vivo situation by underestimating in vivo bioavailability of highly lipophilic compds. unless acceptors, such as serum proteins, are added to the receiving buffer.

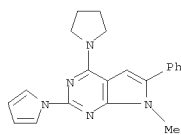
REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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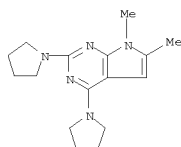
L5 ANSWER 21 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1998:622209 CAPLUS
 DOCUMENT NUMBER: 129:343459
 TITLE: Chemical Oxidation of 2,4-Diaminopyrrolo[2,3-d]pyrimidines
 AUTHOR(S): Bundy, Gordon L.; Gremban, Robert S.; Banitt, Lee S.; Palmer, John R.; Mizzak, Stephen A.; Han, Fusen
 CORPORATE SOURCE: Medicinal Chemistry and Structural Analytical and Medicinal Chemistry, Pharmacia Upjohn Company, Kalamazoo, MI, 49001-0199, USA
 SOURCE: Journal of Organic Chemistry (1998), 63(21), 7542-7546
 CODEN: JOCEAH; ISSN: 0022-3263
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 129:343459
 IT 157012-18-5, PNU-87663
 RL: RCT (Reactant); RACT (Reactant or reagent) (oxidation of diaminopyrrolopyrimidines)
 RN 157012-18-5 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-methyl-6-phenyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)



IT 215385-62-9P 215385-63-0P
 RL: SPN (Synthetic preparation); PREP (Preparation) (oxidation of diaminopyrrolopyrimidines)
 RN 215385-62-9 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-methyl-6-phenyl-4-(1-pyrrolidinyl)-2-(1H-pyrrol-1-yl)- (9CI) (CA INDEX NAME)

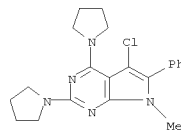


L5 ANSWER 22 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1997:780792 CAPLUS
 DOCUMENT NUMBER: 128:304024
 TITLE: Contribution of serum protein association to discrepancy between the in vivo and in vitro UDS results for 6,7-dimethyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidine (U-89843)
 AUTHOR(S): Zhao, Zhiyang; Koeplinger, Kenneth A.; Padbury, Guy E.; Aaron, Charles S.; Harbach, Philip R.; Mayo, Judy K.; Mattes, William B.; Bundy, Gordon L.
 CORPORATE SOURCE: Drug Metabolism Research, Pharmacia and Upjohn Inc., Kalamazoo, MI, 49001, USA
 SOURCE: Mutation Research, Genetic Toxicology and Environmental Mutagenesis (1997), 395(2,3), 119-126
 CODEN: MRGMFI; ISSN: 1383-5718
 PUBLISHER: Elsevier B.V.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 IT 157013-32-6, U 89843
 RL: ADV (Adverse effect, including toxicity); BIOL (Biological study) (contribution of serum protein association to discrepancy between in vivo and in vitro UDS results for U-89843)
 RN 157013-32-6 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine, 6,7-dimethyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

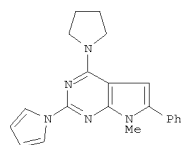


IT 174794-18-4, U 97924
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process) (contribution of serum protein association to discrepancy between in vivo and in vitro UDS results for U-89843)
 RN 174794-18-4 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine-6-methanol, 7-methyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

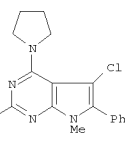
L5 ANSWER 21 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
 RN 215385-63-0 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine, 5-chloro-7-methyl-6-phenyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)



GI



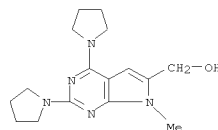
I



II

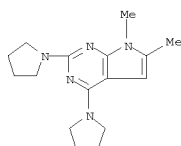
AB Oxidation of lipophilic antioxidant PNU-87663 by a variety of nonbiol. oxidizing agents was investigated. E.g., stirring CHCl3 solns. of PNU-87663 in air for 1 wk gave small amts. of I and II. None of the oxidation products retained significant levels of lipid peroxid. inhibiting activity.
 REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L5 ANSWER 22 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



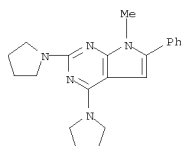
AB U-89843 has been shown to undergo biotransformation, both in vitro and in vivo, to form U-97924 as a major primary metabolite. U-89843 was found to be pos. in an in vitro UDS mutagenesis screen conducted with primary rat hepatocytes in serum-free media. In contrast to in vitro results, no evidence of genetic toxicity of U-89843 was observed in rats in the in vivo/in vitro version of the UDS test with single oral doses up to 1400 mg/kg. The neg. results may be related to more robust in vivo detoxification mechanisms or relatively lower exposure to reactive metabolites formed by bioactivation of U-89843 as compared to that observed in the serum-free in vitro hepatocyte test system. Further studies showed rat serum suppressed the in vitro metabolism of U-89843 as well as the formation of the corresponding hydroxylated metabolite, U-97924, the putative precursor of proposed reactive electrophilic metabolite. The measured in vivo systemic clearance of U-89843 (0.53 l/h/kg) in rats was about 1000-fold slower than the in vitro intrinsic clearance (606 l/h/kg) estimated by measuring the formation of U-97924 in rat liver microsomal incubations. Since U-89843 is extensively associated with serum proteins a poor extraction ratio into the liver may account for the slower biotransformation of U-89843 in vivo as compared to that exhibited in in vitro serum-free hepatocyte incubations. Addition of bovine serum albumin (1-40 mg/mL) to the in vitro UDS assay medium decreased the UDS mean net grains per nucleus response of U-89843. These results suggest that the effect of serum protein should be considered when comparing serum-free in vitro UDS and in vivo UDS results for highly serum protein bound compds.
 REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L5 ANSWER 23 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1997:395768 CAPLUS
DOCUMENT NUMBER: 127:60531
TITLE: Effect of lazaroide U74389F and U89843D on iron-induced degeneration of nigrostriatal dopaminergic neurons
AUTHOR(S): Crandall, B. M.; Sengstock, G. J.; Arendash, G. W.
CORPORATE SOURCE: Department of Biology and Institute on Aging, University of South Florida, Tampa, FL, 33620, USA
SOURCE: Metal Ions in Biology and Medicine, Proceedings of the International Symposium on Metal Ions in Biology and Medicine, 4th, Barcelona, May 19-22, 1996 (1996), 317-319. Editor(s): Collery, Philippe. Libbey Eurotext: Montrouge, Fr.
CODEN: 6400AC
DOCUMENT TYPE: Conference
LANGUAGE: English
IT 175097-45-7, U89843D
R1: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study);
USES (Uses)
(Lazaroide U74389F and U89843D inhibition of iron-induced degeneration of nigrostriatal dopaminergic neurons)
RN 175097-45-7 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 6,7-dimethyl-2,4-di-1-pyrrolidinyl-, sulfate (1:1) (9CI) (CA INDEX NAME)
CM 1
CRN 157013-32-6
CMP C16 H23 N5



CM 2
CRN 7664-93-9
CMP H2 O4 S

L5 ANSWER 24 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1997:318586 CAPLUS
DOCUMENT NUMBER: 127:44777
TITLE: Pyrrolopyrimidines: novel brain-penetrating antioxidants with neuroprotective activity in brain injury and ischemia models
AUTHOR(S): Hall, E. D.; Andrus, P. K.; Smith, S. L.; Fleck, T. J.; Scherch, H. M.; Lutzke, B. S.; Sawada, G. A.; Althaus, J. S.; Vonvoigtlander, P. F.; Padbury, G. E.;
CORPORATE SOURCE: Larson, P. G.; Palmer, J. R.; Bundy, G. L. CNS Diseases Research, Pharmacia Upjohn, Inc., Kalamazoo, MI, USA
SOURCE: Journal of Pharmacology and Experimental Therapeutics (1997), 281(2), 895-904
CODEN: JPETAB; ISSN: 0022-3565
PUBLISHER: Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 172035-70-0, U 87663E 172035-71-1, U 89843E
R1: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(pyrrolopyrimidines: brain-penetrating antioxidants with neuroprotective activity in brain injury and ischemia)
RN 172035-70-0 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-methyl-6-phenyl-2,4-di-1-pyrrolidinyl-, monomethanesulfonate (9CI) (CA INDEX NAME)
CM 1
CRN 157012-18-5
CMP C21 H25 N5



CM 2
CRN 75-75-2
CMP C H4 O3 S

L5 ANSWER 23 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

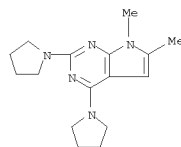


AB The substantia nigra zona compacta (SNc) of Parkinson's diseased (PD) brains shows a spontaneous increase in iron (Fe) concentration. Since Fe is known to facilitate reactions that result in free radical formation and oxidative damage, Fe may be a causative factor in the degeneration of nigrostriatal dopaminergic neurons that occurs in PD. Two lazaroide antioxidants - U74389F and U89843D - were tested for their ability to protect against the neurotoxic effects produced by Fe infusion into the rat SNc. U74389F treatment prevented acute increases in striatal dopamine and HVA levels normally present at 24 h following intranigral Fe infusion and attenuated the loss of SNc neurons normally present at 2 mo after intranigral Fe infusion. Chronic treatment with U89843D not only prevented Fe-induced atrophy of the SN at two weeks following Fe infusion, but also prevented the Fe-induced increase in the striatal dopamine turnover present at the same point.

L5 ANSWER 24 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 172035-71-1 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 6,7-dimethyl-2,4-di-1-pyrrolidinyl-, monomethanesulfonate (9CI) (CA INDEX NAME)
CM 1
CRN 157013-32-6
CMP C16 H23 N5



CM 2
CRN 75-75-2
CMP C H4 O3 S



AB A novel group of antioxidant compds., the pyrrolopyrimidines, has been discovered recently. Many of these possess significantly improved oral bioavailability (56-70% in rats), increased efficacy and potency in protecting cultured neurons against iron-induced lipid peroxidative injury and as much as a 5-fold increase in brain uptake compared with the 21-aminosteroid antioxidant compound, tirilazad mesylate (U-74006F), described earlier. They appear to quench lipid peroxidn. reactions by electron-donating and/or radical-trapping mechanisms. Several compds. in the series, such as U-101033E and U-104067F, demonstrate greater ability than tirilazad to protect the hippocampal CA1 region in the gerbil transient (5-min) forebrain ischemia model. Delaying treatment until 4 h after the ischemic insult still results in significant CA1 neuronal protection. U-101033E is still effective in salvaging a portion of the

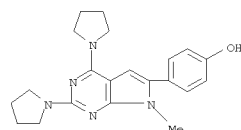
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L5 ANSWER 24 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
CA1 neuronal population when the ischemic duration is extended to 10 min. In addn., U-101033E has been found to be protective in the context of focal cerebral ischemia, reducing infarct size in the mouse permanent middle cerebral artery occlusion model, in contrast to tirilazad which is minimally effective. These results suggest that antioxidant compds. with improved brain parenchymal penetration are better able to limit certain types of ischemic brain damage than those which are localized in the cerebral microvasculature. However, the activity of U-101033E in improving early post-traumatic recovery in mice subjected to severe concussive head injury is similar to that of tirilazad. Last, the oral bioavailability of many pyrrolopyrimidines suggests that they may be useful for certain chronic neurodegenerative disorders in which lipid peroxidn. plays a role.

REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS

FORMAT RECORD. ALL CITATIONS AVAILABLE IN THE RE

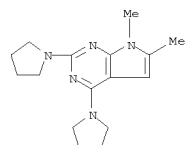
L5 ANSWER 25 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1996:745088 CAPLUS
DOCUMENT NUMBER: 126:15811
TITLE: Effects of lazaroids and a peroxynitrite scavenger in a cell model of peroxynitrite toxicity
Fici, Gregory J.; Althaus, John S.; VonVoigtlander, Philip F.
CORPORATE SOURCE: CNS Diseases Research, Pharmacia Upjohn Inc., Kalamazoo, MI, USA
SOURCE: Free Radical Biology & Medicine (1996), Volume Date 1997, 22(1/2), 223-228
CODEN: FRBMHH; ISSN: 0891-5849
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 172035-73-3, U 91736B
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (cytoprotection against peroxynitrite toxicity to cerebellar granular cells)
RN 172035-73-3 CAPLUS
CN Phenol,
4-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-6-yl)-, monohydrobromide (9CI) (CA INDEX NAME)



AB The authors developed a cerebellar granule cell model of peroxynitrite toxicity and showed that certain sulphydryl-containing compds. (e.g., penicillamine) present as concurrent treatments could inhibit this toxicity. In the present study, 21-aminosteroid and pyrrolopyrimidine lazaroids were tested for cytoprotection in this peroxynitrite toxicity model. In addition, the authors tested for added protection using a peroxynitrite scavenger concurrent treatment combined with a lazaroid post-treatment. The toxicity assay utilized cells that were previously exposed to 100 μ M L-buthionine (S,R)-sulfoximine (BSO), an inhibitor of γ -glutamyl cysteine synthetase, for 24 h. This sublethal concentration of BSO shifted the peroxynitrite (1-1000 μ M) toxicity curve to the left by more than one-half of a log unit. The half-maximal toxicity concentration (TC50)

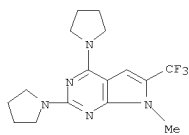
L5 ANSWER 25 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
of peroxynitrite in cells treated with BSO was 50 μ M. The 21-aminosteroids, U-74006F and U-74500A, and the pyrrolopyrimidines, U-91736B and U-101033E, were tested as post-treatments. U-74006F and U-74500A had EC50 values of approx. 100 μ M (concns. which blocked 50% of the toxicity). U-91736B and U-101033E had EC50 values of 1 μ M and showed 100% protection at 3-10 μ M. Treatment with either 100 μ M U-74006F or 1 μ M U-101033E resulted in a right-hand shift (protection) in the peroxynitrite toxicity curve. Combination treatment of lazaroids with 1 mM penicillamine resulted in additive protection compared to either treatment alone.

L5 ANSWER 26 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1996:664567 CAPLUS
DOCUMENT NUMBER: 125:292176
TITLE: Bioactivation of
6,7-Dimethyl-2,4-di-1-pyrrolidinyl-7H-
pyrrolo[2,3-d]pyrimidine (U-89843) to Reactive
Intermediates That Bind Covalently to Macromolecules
and Produce Genotoxicity
Zhao, Zhiyang; Koepfing, Kenneth A.; Padbury, Guy
E.; Hauer, Michael J.; Bundy, Gordon L.; Banitt, Lee
S.; Schwartz, Theresa M.; Zimmermann, David C.;
Harbach, Philip R.; et al.
CORPORATE SOURCE: Pharmacia Upjohn Inc., Kalamazoo, MI, 49001, USA
SOURCE: Chemical Research in Toxicology (1996), 9(8),
1230-1239
CODEN: CRTOC; ISSN: 0893-228X
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 157013-32-6, U 89843
RL: ADV (Adverse effect, including toxicity); BPR (Biological process);
BSU (Biological study, unclassified); BIOL (Biological study); PROC
(Process)
(Bioactivation of U-89843 to reactive intermediates that bind
covalently to macromols. and produce genotoxicity)
RN 157013-32-6 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 6,7-dimethyl-2,4-di-1-pyrrolidinyl- (9CI)
(CA INDEX NAME)

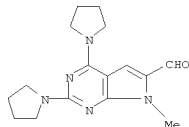


IT 182146-03-8P, U 107634
RL: ADV (Adverse effect, including toxicity); SPN (Synthetic
preparation);
BIOL (Biological study); PREP (Preparation)
(bioactivation of U-89843 to reactive intermediates that bind
covalently to macromols. and produce genotoxicity)
RN 182146-03-8 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-methyl-2,4-di-1-pyrrolidinyl-6-
(trifluoromethyl)- (9CI) (CA INDEX NAME)

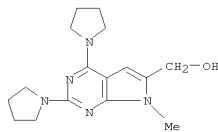
L5 ANSWER 26 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



IT 174752-75-1, U 97865 174794-18-4, U 97924
 182057-81-4 182057-84-7 182057-87-0
 182057-90-5 182057-94-9
 RL: BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative)
 (bioactivation of U-89843 to reactive intermediates that bind covalently to macromols. and produce genotoxicity)
 RN 174752-75-1 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine-6-carboxaldehyde, 7-methyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)



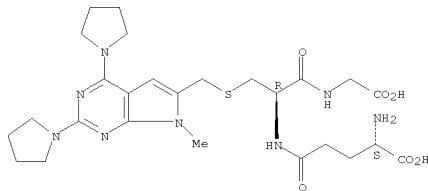
RN 174794-18-4 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine-6-methanol, 7-methyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)



RN 182057-81-4 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine, 6,6'-[oxybis(methylene)]bis[7-methyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

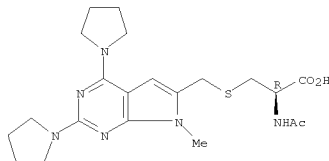
L5 ANSWER 26 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
 pyrrolo[2,3-d]pyrimidin-6-yl)methyl]-L-cysteinyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

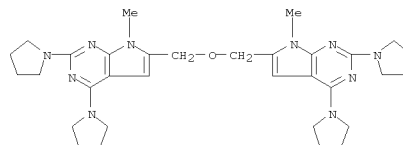


RN 182057-94-9 CAPLUS
 CN L-Cysteine, N-acetyl-S-[(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-6-yl)methyl]- (9CI) (CA INDEX NAME)

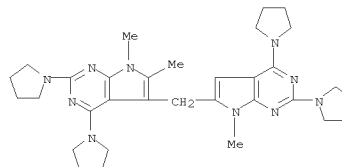
Absolute stereochemistry.



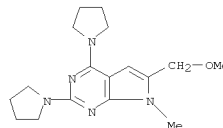
IT 182146-02-7F, U 98140
 RL: BSU (Biological study, unclassified); MFM (Metabolic formation); SPN (Synthetic preparation); BIOL (Biological study); FORM (Formation, nonpreparative); PREP (Preparation)
 (bioactivation of U-89843 to reactive intermediates that bind covalently to macromols. and produce genotoxicity)
 RN 182146-02-7 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine, 6,6'-methylenebis[7-methyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

L5 ANSWER 26 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
 pyrrolidinyl- (9CI) (CA INDEX NAME)

RN 182057-84-7 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine, 6,7-dimethyl-5-[(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-6-yl)methyl]-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

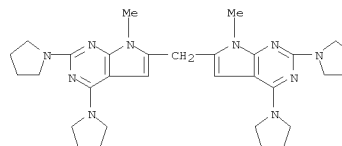


RN 182057-87-0 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine, 6-(methoxymethyl)-7-methyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)



RN 182057-90-5 CAPLUS
 CN Glycine, N-[N-L-γ-glutamyl-S-[(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-6-yl)methyl]-L-cysteinyl]- (9CI) (CA INDEX NAME)

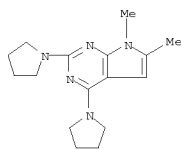
L5 ANSWER 26 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



AB U-89843 is a novel pyrrolo[2,3-d]pyrimidine antioxidant with prophylactic activity in animal models of lung inflammation. During preclin. safety evaluation, U-89843 was found to give a pos. response in the in vitro unscheduled DNA synthesis (UDS) assay, an assay which measures DNA repair following chemical-induced DNA damage in metabolically competent rat hepatocytes. Incubation of [14C]U-89843 with liver microsomes resulted in covalent binding of radioactive material to macromols. by a process that was NADPH-dependent. U-89843 has been shown to undergo C-6 methylhydroxylation to give U-97924, in rat both in vivo and in vitro, in a reaction catalyzed by cytochrome P 450 2C11. Synthetical U-97924 is chemical reactive and undergoes dimerization in aqueous solution. The dimerization of U-97924 was significantly inhibited by addition of nucleophiles such as methanol, glutathione, and N-acetylcysteine. Characterization of the corresponding methanol, glutathione, and N-acetylcysteine adducts of U-97924 supported the hypothesis of a reaction pathway involving reactive iminium species formed via dehydration of U-97924. The metabolism-dependent irreversible covalent binding of radioactive material to liver microsomal protein and DNA also is dramatically reduced in the presence of reduced glutathione (GSH). A trifluoromethyl analog of U-89843 was prepared in an effort to block the corresponding metabolic hydroxylation pathway. This new compound (U-107634) was found to be neg. in the in vitro UDS assay, and its metabolic susceptibility toward hydroxylation at the C-6 Me group was eliminated. These observations suggest that the pos. in vitro UDS results of U-89843 are mediated by the bioactivation of U-89843, leading to reactive electrophilic intermediates derived from the (hydroxymethyl)pyrrole metabolite U-97924.

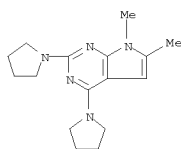
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L5 ANSWER 27 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1996:137390 CAPLUS
 DOCUMENT NUMBER: 124:250833
 TITLE: Inhibition of Ca2+-pump ATPase and the Na+/K+-pump ATPase by iron-generated free radicals. Protection by 6,7-dimethyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidine sulfate (U-89843D), a potent, novel, antioxidant/free radical scavenger
 AUTHOR(S): Rohn, Troy T.; Hinds, Thomas R.; Vincenzi, Frank F.
 CORPORATE SOURCE: Dep. Pharmacology, Univ. Washington, Seattle, WA, 98195, USA
 SOURCE: Biochemical Pharmacology (1996), 51(4), 471-6
 CODEN: BCPCA6; ISSN: 0006-2952
 PUBLISHER: Elsevier
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 IT 175097-45-7, U 89843D
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study);
 USES
 (Uses)
 (inhibition of Ca2+-pump ATPase and the Na+/K+-pump ATPase by iron-generated free radicals and protection by U-89843D)
 RN 175097-45-7 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine, 6,7-dimethyl-2,4-di-1-pyrrolidinyl-, sulfate (1:1) (9CI) (CA INDEX NAME)
 CM 1
 CRN 157013-32-6
 CMP C16 H23 N5



CM 2
 CRN 7664-93-9
 CMP H2 O4 S

L5 ANSWER 28 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1996:114812 CAPLUS
 DOCUMENT NUMBER: 124:219308
 TITLE: In vitro and in vivo biotransformation of 6,7-dimethyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidine (U-89843) in the rat
 AUTHOR(S): Zhao, Zhiyang; Koepfing, Kenneth A.; Bundy, Gordon L.; Banitt, Lee S.; Padbury, Guy E.; Hauer, Michael J.; Sanders, Phillip E.
 CORPORATE SOURCE: Drug Metabolism Research and Medicinal Chemistry Research, The Upjohn Company, Kalamazoo, MI, 49001, USA
 SOURCE: Drug Metabolism and Disposition (1996), 24(2), 187-98
 CODEN: DMSAI; ISSN: 0090-9556
 PUBLISHER: Williams & Wilkins
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 IT 157013-32-6, U 89843
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
 (biotransformation of pyrrolidinylpyrrolopyrimidine U-89843 in the rat)
 RN 157013-32-6 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine, 6,7-dimethyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)



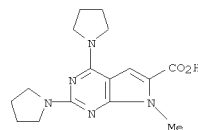
IT 174752-74-0 174752-75-1, U 97865 174794-18-4, - 97924
 RL: BSU (Biological study, unclassified); MF (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative)
 (biotransformation of pyrrolidinylpyrrolopyrimidine U-89843 in the rat)
 RN 174752-74-0 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine-6-carboxylic acid, 7-methyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

L5 ANSWER 27 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

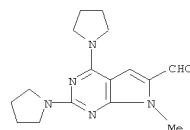


AB Preincubation of red blood cell (RBC) membranes with a model system known to generate reactive oxygen species (ROS) and free radicals (200 μ M ferrous sulfate and 200 μ M EDTA, Fe2+/EDTA) resulted in inhibition of the Na+/K+-pump ATPase, the basal Ca2+-pump ATPase, and the calmodulin-activated Ca2+-pump ATPase. Inhibition of the ion pump ATPases was also associated with membrane protein crosslinking and lipid peroxidn., the latter as monitored by the formation of thiobarbituric acid reactive substances (TBARS). Inhibition of the ion transport ATPases, protein crosslinking and formation of TBARS were prevented by U-89843D in a concentration-dependent manner, with half-maximal protection seen at 0.3 μ M.
 U-89843D was more potent than the classical antioxidant butylated hydroxytoluene. Neither U-89843D nor the solvent DMSO had any effect on the assay of TBARS. U-89843D exerted only minimal inhibitory activity on ATPase activities. Thus, U-89843D was potent in vitro in preventing a variety of membrane-damaging reactions mediated by ROS. It is suggested that protection of membranes from ROS-mediated damage is of potential usefulness in the prevention and treatment of certain disease processes.

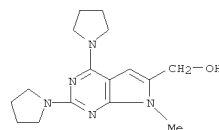
L5 ANSWER 28 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 174752-75-1 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine-6-carboxaldehyde, 7-methyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)



RN 174794-18-4 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine-6-methanol, 7-methyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)



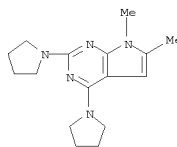
AB The biotransformation of 6,7-dimethyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidine (U-89843) has been studied in rat both in vitro and in vivo. Major metabolites observed by HPLC anal. of rat plasma, liver cytosol, and microsomal incubations were characterized by UV, LC/MS, and comparison with synthetic stds. The structures of the metabolites were shown to be the C-6 hydroxymethyl (U-97924), C-6 formyl (U-97865), and C-6 carboxyl analogs of U-89843. In the male rat, formation of U-97924 is mediated by cytochrome P 450c11. Kinetic anal. of U-97924 formation indicated that it was a high-affinity/high-capacity processes (KM = 4.2 \pm 0.5 μ M; Vmax = 21.2 \pm 0.8 nmol/mg/min). Formation of U-97865 via enzymic oxidation from the primary metabolite U-97924 was catalyzed by both the microsomal subcellular fraction in a NADPH-dependent process (presumably

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L5 ANSWER 28 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
via cytochrome P 450) and in cytosol by NAD+-dependent alc.
dehydrogenase.

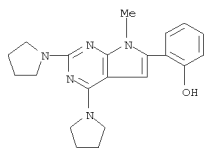
Upon incubation with cytosolic fractions, U-97865 was found to undergo
NAD+-dependent oxidn., mediated by aldehyde dehydrogenase, to the
corresponding carboxylic acid. Although significant levels of U-89843,
U-97924, and U-97865 obsd. in vivo in rat plasma, only a minor amt. of
the
carboxylic acid together with larger amts. of unidentified polar
metabolites were excreted in urine and feces.

L5 ANSWER 29 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1996:18890 CAPLUS
DOCUMENT NUMBER: 124:135448
TITLE: U-89843A is a novel allosteric modulator of
 γ -aminobutyric acidA receptors
AUTHOR(S): Im, Haesook K.; Im, Wha Bin; Pregenzer, Jeff F.;
Carter, Don B.; Hamilton, Beverly J.
CORPORATE SOURCE: Central Nervous System Diseases Research, The Upjohn
Company, Kalamazoo, MI, USA
SOURCE: Journal of Pharmacology and Experimental Therapeutics
(1995), 275(3), 1390-5
CODEN: JPETAB; ISSN: 0022-3565
PUBLISHER: Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 157013-32-6, U 89843A
RL: BAC (Biological activity or effector, except adverse); BSU
(Biological
study, unclassified); THU (Therapeutic use); BIOL (Biological study);
USES
(Uses)
(U-89843A is a novel allosteric modulator of γ -aminobutyric acidA
receptors)
RN 157013-32-6 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 6,7-dimethyl-2,4-di-1-pyrrolidinyl- (9CI)
(CA INDEX NAME)

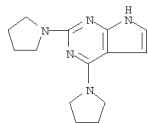


IT 157012-69-6, U 94047 157013-34-8, U 92229
157013-36-0, U 89640
RL: BAC (Biological activity or effector, except adverse); BSU
(Biological
study, unclassified); THU (Therapeutic use); BIOL (Biological study);
USES
(Uses)
(sedation by pyrrolopyrimidines in relation to GABAA receptor
modulation)
RN 157012-69-6 CAPLUS
CN Phenol,
2-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-6-yl)-
(9CI) (CA INDEX NAME)

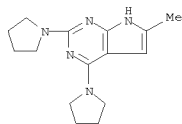
L5 ANSWER 29 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 157013-34-8 CAPLUS
CN 1H-Pyrrolo[2,3-d]pyrimidine, 2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX
NAME)



RN 157013-36-0 CAPLUS
CN 1H-Pyrrolo[2,3-d]pyrimidine, 6-methyl-2,4-di-1-pyrrolidinyl- (9CI) (CA
INDEX NAME)

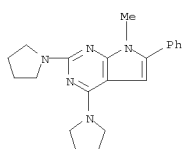


AB A group of pyrrolopyrimidine derivs. were examined for their interaction
with rat recombinant γ -aminobutyric acid (GABA)A receptors using the
whole cell patch clamp and equilibrium binding techniques. In the
 $\alpha 1\beta 2\gamma 2$ subtype of GABAA receptors expressed in human
embryonic kidney cells, a prototype pyrrolopyrimidine, U-89843A
(7H-pyrrolo[2,3-d]pyrimidine, 6,7-methyl-2,4-di-1-pyrrolidinyl,
hydrochloride), dose-dependently enhanced 5 μ M GABA-induced Cl-
currents with a maximal enhancement of 362%, a half-maximal
concentration of 2
 μ M and a slope factor of 1.1. The drug also inhibited
[35S]t-butylbicyclophosphorothionate binding in rat cerebrocortical
membranes with a similar half-maximal inhibitory concentration The
enhancement
of Cl- currents by U-89843A was insensitive to Ro 15-1788 (a

L5 ANSWER 29 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
benzodiazepine antagonist), was also obsd. in the $\alpha 3\beta 2\gamma 2$
and $\alpha 6\beta 2\gamma 2$ subtypes (no selectivity to different
 α -isoforms unlike many benzodiazepines), but was absent in the
receptor subtypes consisting of two subunits ($\alpha 1\beta 2$,
 $\alpha 1\gamma 2$ and $\beta 2\gamma 2$). It has been known that
neurosteroids and barbiturates are uniformly active in both the two
subunit receptors, substituted pyrazinones are only active in the
 $\alpha 1\beta 2$ subtype and loreclezole is active in the subtypes contg.
 $\beta 2$. The authors propose that U-89843A interacts with an allosteric
site on GABAA receptors distinct from the sites for benzodiazepines,
barbiturates, neurosteroids, substituted pyrazinones or loreclezole. In
the mouse, several analogs of U-89843A induced sedation with a rank order
of potency identical to that obsd. for their actions on
[35S]t-butylbicyclophosphorothionate binding and GABA-induced Cl-
currents. Moreover, sedation induced by the analogs was not accompanied
by a loss of righting reflex, unlike diazepam, barbiturates and
neurosteroids. U-89843A appears to represent a novel class of allosteric
modulators of GABAA receptors (pyrrolopyrimidines) and may possess a
unique therapeutic profile, arising from its interaction with GABAA
receptors via a novel site which is formed from quaternary assocns. of
the
 α , β and γ subunits.

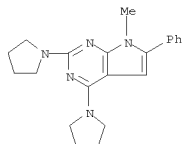
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L5 ANSWER 30 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1995:826911 CAPLUS
 DOCUMENT NUMBER: 124:55909
 TITLE: Synthesis of Novel 2,4-Diaminopyrrolo[2,3-d]pyrimidines with Antioxidant, Neuroprotective, and Antiasthma Activity
 AUTHOR(S): Bundy, Gordon L.; Ayer, Donald E.; Banitt, Lee S.; Belonga, Kenneth L.; Mizzak, Stephen A.; Palmer, John R.; Tustin, James M.; Chin, Jia En; Hall, Edward D.; et al.
 CORPORATE SOURCE: Upjohn Laboratories, Upjohn Company, Kalamazoo, MI, 49001, USA
 SOURCE: Journal of Medicinal Chemistry (1995), 38 (21), 4161-3
 CODEN: JMCMAR; ISSN: 0022-2623
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 124:55909
 IT 157012-18-5P, U 87663 157012-46-9P, U 89603
 157012-47-0P, U 91763 157013-32-6P, U 89843
 172035-70-0P, U 87663E 172035-71-1P, U 89843E
 172035-72-2P, U 89603E 172035-73-3P, U 91736B
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation) (preparation of pyrrolo[2,3-d]pyrimidinediamines as antioxidants, neuroprotectants and antiasthmatics)
 RN 157012-18-5 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-methyl-6-phenyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)



RN 157012-46-9 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine, 6-(4-methoxyphenyl)-7-methyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

L5 ANSWER 30 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
 CRN 157012-18-5
 CMF C21 H25 N5



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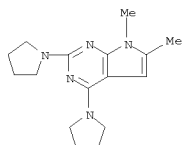
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RN 172035-71-1 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine, 6,7-dimethyl-2,4-di-1-pyrrolidinyl-, monomethanesulfonate (9CI) (CA INDEX NAME)

CM 1

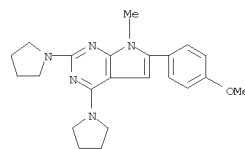
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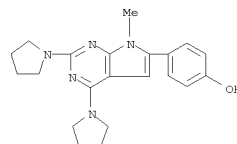
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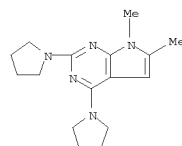
L5 ANSWER 30 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 157012-47-0 CAPLUS
 CN Phenol, 4-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-6-yl)- (9CI) (CA INDEX NAME)



RN 157013-32-6 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine, 6,7-dimethyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)



RN 172035-70-0 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-methyl-6-phenyl-2,4-di-1-pyrrolidinyl-, monomethanesulfonate (9CI) (CA INDEX NAME)

CM 1

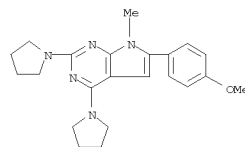
L5 ANSWER 30 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 172035-72-2 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine, 6-(4-methoxyphenyl)-7-methyl-2,4-di-1-pyrrolidinyl-, monomethanesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 157012-46-9
 CMF C22 H27 N5 O



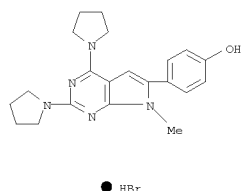
CM 2

CRN 75-75-2
 CMF C H4 O3 S



RN 172035-73-3 CAPLUS
 CN Phenol, 4-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-6-yl)-, monohydrobromide (9CI) (CA INDEX NAME)

L5 ANSWER 30 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



AB Several novel 2,4-diaminopyrrolo[2,3-d]pyrimidines were prepared from 2,4,6-triaminopyrimidines and α -bromo ketones under mildly basic conditions. Many of these compds. are potent inhibitors of iron-dependent lipid peroxidn., they exhibit cytoprotective activity in two cell culture models of oxidative injury, and they possess neuroprotective activity in a mouse head injury model. In addition, U-101033 [i.e., 5,6,7,8-tetrahydro-9-[2-(4-morpholinyl)ethyl]-2,4-di-1-pyrrolidinyl-1H-pyrimido[4,5-b]indole] and U-104067 [i.e., 9-[2-(4-morpholinyl)ethyl]-2,4-di-1-pyrrolidinyl-1H-pyrimido[4,5-b]indole] are both effective inhibitors of antigen-induced lung eosinophilia in mice and rats (anti-asthma model) with potencies close to the glucocorticoids. Compound U-104067 was selected for clin. evaluation for the treatment of asthma and several chronic neurodegenerative disorders.

L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1994:534139 CAPLUS
DOCUMENT NUMBER: 121:134139
TITLE: Preparation of pharmaceutically active bicyclic-heterocyclic amines
INVENTOR(S): Ayer, Donald E.; Bundy, Gordon L.; Jacobsen, Eric Jon
PATENT ASSIGNEE(S): Upjohn Co., USA
SOURCE: PCT Int. Appl., 120 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9320078	A1	19931014	WO 1993-US2188	19930316
W: AT, AU, BB, BG, BR, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KR, KP, KR, LK, LU, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, US, VN				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, SN, TD, TG				
AU 9339174	A	19931108	AU 1993-39174	19930316
AU 675932	B2	19970227		
EP 633886	A1	19950118	EP 1993-908303	19930316
EP 633886	B1	20001018		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
HU 70954	A2	19951128	HU 1994-2829	19930316
JP 08502721	T	19960326	JP 1993-517457	19930316
RU 2103272	C1	19980127	RU 1994-42466	19930316
PL 175347	B1	19981231	PL 1993-305430	19930316
PL 175327	B1	19981231	PL 1993-317810	19930316
AT 197051	T	20001115	AT 1993-908303	19930316
ES 2150941	T3	20001216	ES 1993-908303	19930316
PT 633886	T	20010330	PT 1993-908303	19930316
NO 9403655	A	19941205	NO 1994-3655	19940930
NO 303542	B1	19980727		
FI 9404602	A	19941003	FI 1994-4602	19941003
US 5502187	A	19960326	US 1994-317934	19941003
GR 3035188	T3	20010430	GR 2001-400006	20011014
LV 12794	B	20020620	LV 2001-150	20011018
PRIORITY APPLN. INFO.:			US 1992-863646	A2 19920403
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			US 1993-128957	B1 19930929
			US 1994-222995	B1 19940405

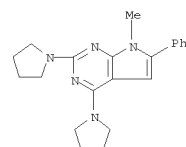
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L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

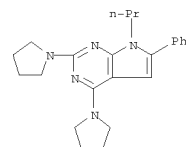
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157014-06-7P 157014-07-8P 157014-08-9P
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L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

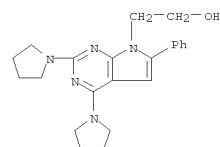
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RN 157012-18-5 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-methyl-6-phenyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)



RN 157012-19-6 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 6-phenyl-7-propyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

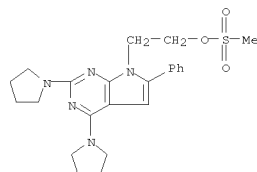


RN 157012-21-0 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine-7-ethanol, 6-phenyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

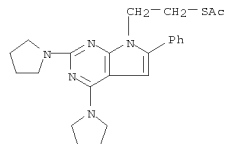


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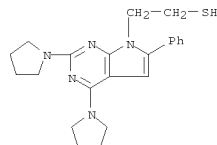
L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
 RN 157012-22-1 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine-7-ethanol, 6-phenyl-2,4-di-1-pyrrolidinyl-,
 methanesulfonate (ester) (9CI) (CA INDEX NAME)



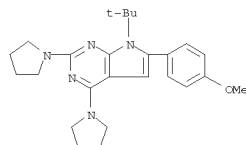
RN 157012-23-2 CAPLUS
 CN Ethanethioic acid, S-[2-(6-phenyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-7-yl)ethyl] ester (9CI) (CA INDEX NAME)



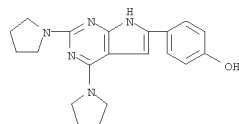
RN 157012-24-3 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine-7-ethanethiol,
 6-phenyl-2,4-di-1-pyrrolidinyl-
 (9CI) (CA INDEX NAME)



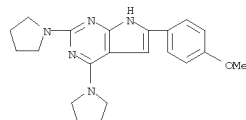
L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 157012-29-8 CAPLUS
 CN Phenol, 4-(2,4-di-1-pyrrolidinyl-1H-pyrrolo[2,3-d]pyrimidin-6-yl)- (9CI)
 (CA INDEX NAME)

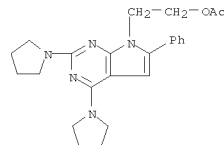


RN 157012-30-1 CAPLUS
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 (9CI) (CA INDEX NAME)

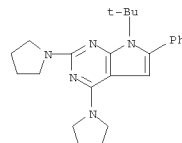


RN 157012-31-2 CAPLUS
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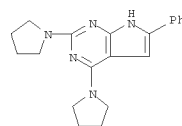
L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
 RN 157012-25-4 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine-7-ethanol, 6-phenyl-2,4-di-1-pyrrolidinyl-,
 acetate (ester) (9CI) (CA INDEX NAME)



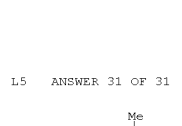
RN 157012-26-5 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-(1,1-dimethylethyl)-6-phenyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)



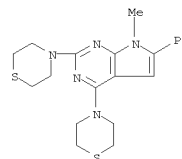
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 CN 1H-Pyrrolo[2,3-d]pyrimidine, 6-phenyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)



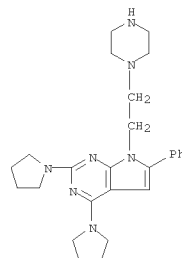
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 CN 7H-Pyrrolo[2,3-d]pyrimidine,
 7-(1,1-dimethylethyl)-6-(4-methoxyphenyl)-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)



L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



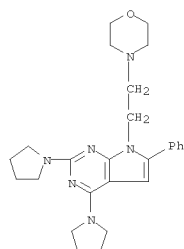
RN 157012-32-3 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine,
 6-phenyl-7-[2-(1-piperazinyl)ethyl]-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)



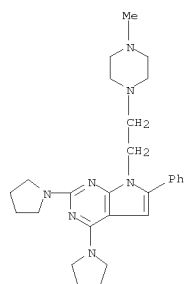
RN 157012-33-4 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine,
 7-[2-(4-morpholinyl)ethyl]-6-phenyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

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L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

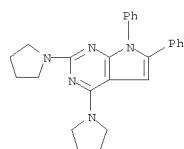


RN 157012-34-5 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine,
7-[2-(4-methyl-1-piperazinyl)ethyl]-6-phenyl-
2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

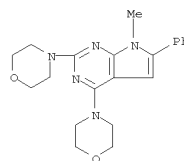


RN 157012-35-6 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine-7-ethanol, 6-(4-methoxyphenyl)-2,4-di-1-
pyrrolidinyl- (9CI) (CA INDEX NAME)

L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

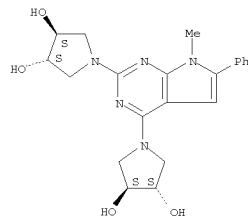


RN 157012-39-0 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-methyl-2,4-di-4-morpholinyl-6-phenyl-
(9CI) (CA INDEX NAME)



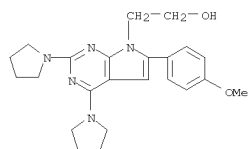
RN 157012-40-3 CAPLUS
CN 3,4-Pyrrolidinediol, 1,1'-(7-methyl-6-phenyl-7H-pyrrolo[2,3-d]pyrimidine-
2,4-diyl)bis-, [3S-[1(3R*,4R*),3α,4β]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

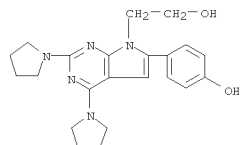


RN 157012-41-4 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-methyl-6-phenyl-2,4-di-1-piperazinyl-
(9CI)

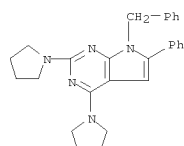
L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 157012-36-7 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine-7-ethanol, 6-(4-hydroxyphenyl)-2,4-di-1-
pyrrolidinyl- (9CI) (CA INDEX NAME)

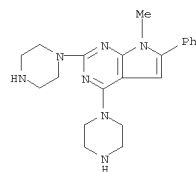


RN 157012-37-8 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 6-phenyl-7-(phenylmethyl)-2,4-di-1-
pyrrolidinyl- (9CI) (CA INDEX NAME)



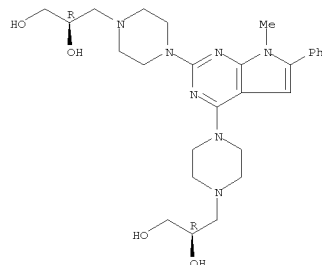
RN 157012-38-9 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 6,7-diphenyl-2,4-di-1-pyrrolidinyl- (9CI)
(CA INDEX NAME)

L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



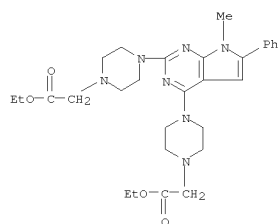
RN 157012-42-5 CAPLUS
CN 1,2-Propanediol,
3,3'-[7-methyl-6-phenyl-7H-pyrrolo[2,3-d]pyrimidine-2,4-
diyl]di-4,1-piperazinediyl]bis-, [R-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

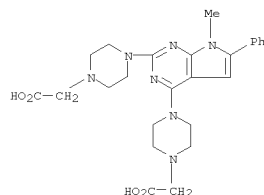


RN 157012-43-6 CAPLUS
CN 1-Piperazineacetic acid, 4,4'-(7-methyl-6-phenyl-7H-pyrrolo[2,3-
d]pyrimidine-2,4-diyl)bis-, diethyl ester (9CI) (CA INDEX NAME)

L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

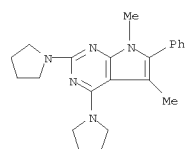


RN 157012-44-7 CAPLUS
 CN 1-Piperazineacetic acid, 4,4'-(7-methyl-6-phenyl-7H-pyrrolo[2,3-d]pyrimidine-2,4-diyl)bis- (9CI) (CA INDEX NAME)

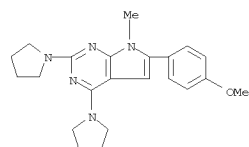


RN 157012-45-8 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine, 5,7-dimethyl-6-phenyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

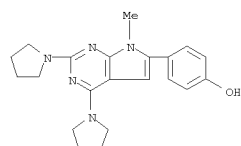
L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 157012-46-9 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine, 6-(4-methoxyphenyl)-7-methyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

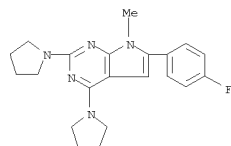


RN 157012-47-0 CAPLUS
 CN Phenol, 4-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-6-yl)- (9CI) (CA INDEX NAME)

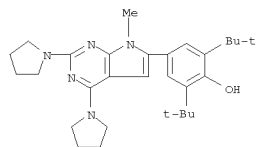


RN 157012-48-1 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine, 6-(4-fluorophenyl)-7-methyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

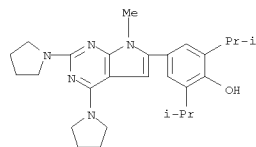
L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 157012-49-2 CAPLUS
 CN Phenol, 2,6-bis(1,1-dimethylethyl)-4-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-6-yl)- (9CI) (CA INDEX NAME)

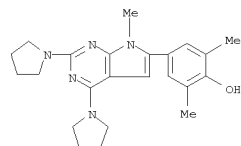


RN 157012-50-5 CAPLUS
 CN Phenol, 2,6-bis(1,1-dimethylethyl)-4-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-6-yl)- (9CI) (CA INDEX NAME)

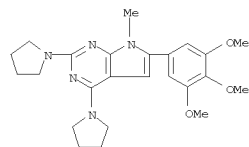


RN 157012-51-6 CAPLUS
 CN Phenol, 2,6-bis(1,1-dimethylethyl)-4-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-6-yl)- (9CI) (CA INDEX NAME)

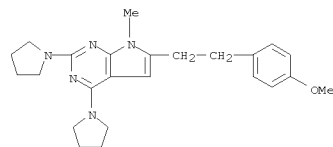
L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 157012-52-7 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-methyl-2,4-di-1-pyrrolidinyl-6-(3,4,5-trimethoxyphenyl)- (9CI) (CA INDEX NAME)



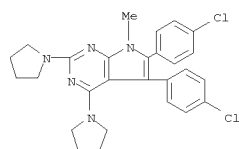
RN 157012-53-8 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine, 6-[2-(4-methoxyphenyl)ethyl]-7-methyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)



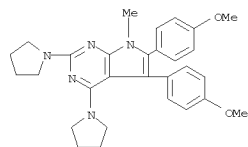
RN 157012-54-9 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine, 5,6-bis(4-chlorophenyl)-7-methyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

10816329.trn

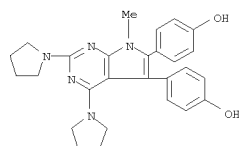
L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 157012-55-0 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 5,6-bis(4-methoxyphenyl)-7-methyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

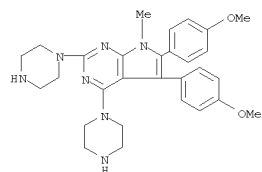


RN 157012-56-1 CAPLUS
CN Phenol, 4,4'-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidine-5,6-diyl)bis- (9CI) (CA INDEX NAME)

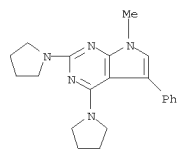


RN 157012-57-2 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 6,7-bis(4-methoxyphenyl)-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

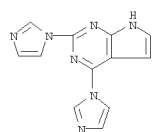
L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 157012-60-7 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-methyl-5-phenyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

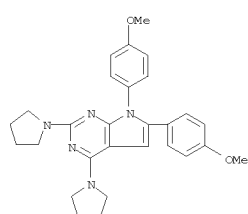


RN 157012-61-8 CAPLUS
CN 1H-Pyrrolo[2,3-d]pyrimidine, 2,4-di-1H-imidazol-1-yl- (9CI) (CA INDEX NAME)

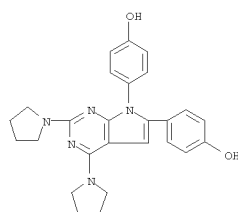


RN 157012-62-9 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine-7-ethanesulfonic acid, 6-phenyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

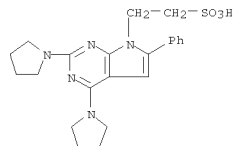


RN 157012-58-3 CAPLUS
CN Phenol, 4,4'-(2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidine-6,7-diyl)bis- (9CI) (CA INDEX NAME)

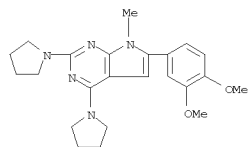


RN 157012-59-4 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 5,6-bis(4-methoxyphenyl)-7-methyl-2,4-di-1-piperazinyl- (9CI) (CA INDEX NAME)

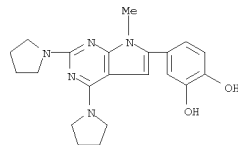
L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 157012-63-0 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 6-(3,4-dimethoxyphenyl)-7-methyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)



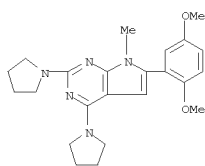
RN 157012-64-1 CAPLUS
CN 1,2-Benzenediol, 4-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-6-yl)- (9CI) (CA INDEX NAME)



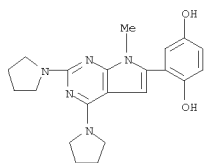
RN 157012-65-2 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 6-(2,5-dimethoxyphenyl)-7-methyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

10816329.trn

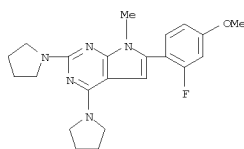
L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 157012-66-3 CAPLUS
CN 1,4-Benzenediol, 2-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-6-yl)- (9CI) (CA INDEX NAME)

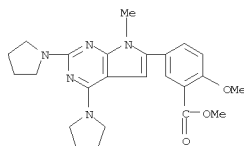


RN 157012-67-4 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 6-(2-fluoro-4-methoxyphenyl)-7-methyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

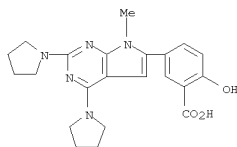


RN 157012-68-5 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 6-(2-methoxyphenyl)-7-methyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

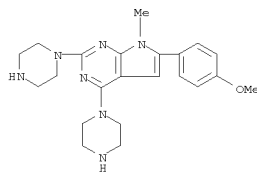
L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 157012-72-1 CAPLUS
CN Benzoic acid, 2-methoxy-5-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-6-yl)- (9CI) (CA INDEX NAME)



RN 157012-73-2 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 6-(4-methoxyphenyl)-7-methyl-2,4-di-1-piperazinyl-, dimethanesulfonate (9CI) (CA INDEX NAME)

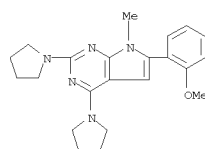


RN 157012-74-3 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 6-(4-methoxyphenyl)-7-methyl-2,4-di-1-piperazinyl-, dimethanesulfonate (9CI) (CA INDEX NAME)

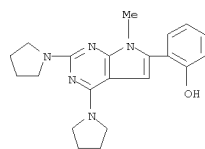
CM 1

CRN 157012-73-2
CMF C22 H29 N7 O

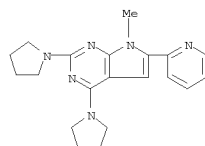
L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 157012-69-6 CAPLUS
CN Phenol, 2-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-6-yl)- (9CI) (CA INDEX NAME)

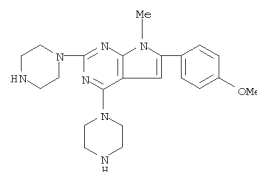


RN 157012-70-9 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-methyl-6-(2-pyridinyl)-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)



RN 157012-71-0 CAPLUS
CN Benzoic acid, 2-methoxy-5-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-6-yl)-, methyl ester (9CI) (CA INDEX NAME)

L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

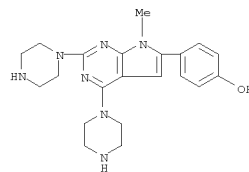


CM 2

CRN 75-75-2
CMF C H4 O3 S



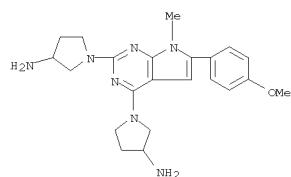
RN 157012-75-4 CAPLUS
CN Phenol, 4-(7-methyl-2,4-di-1-piperazinyl-7H-pyrrolo[2,3-d]pyrimidin-6-yl)- (9CI) (CA INDEX NAME)



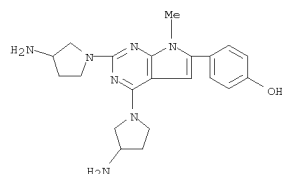
RN 157012-76-5 CAPLUS
CN 3-Pyrrolidinamine, 1,1'-[6-(4-methoxyphenyl)-7-methyl-2,4-di-1-piperazinyl-, dimethanesulfonate (9CI) (CA INDEX NAME)

10816329.trn

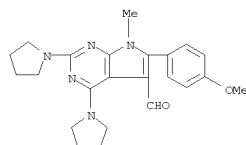
L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 157012-77-6 CAPLUS
CN Phenol, 4-[2,4-bis(3-amino-1-pyrrolidinyl)-7-methyl-7H-pyrrolo[2,3-d]pyrimidin-6-yl]- (9CI) (CA INDEX NAME)

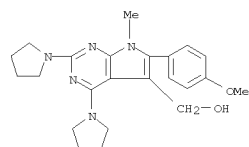


RN 157012-78-7 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine-5-carboxaldehyde, 6-(4-methoxyphenyl)-7-methyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

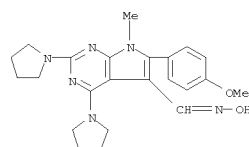


RN 157012-79-8 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine-5-methanol, 6-(4-methoxyphenyl)-7-methyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

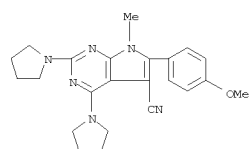
L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 157012-80-1 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine-5-carboxaldehyde, 6-(4-methoxyphenyl)-7-methyl-2,4-di-1-pyrrolidinyl-, oxime (9CI) (CA INDEX NAME)

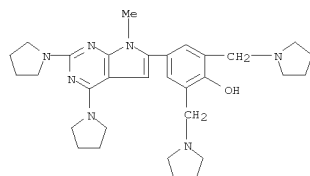


RN 157012-81-2 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine-5-carbonitrile, 6-(4-methoxyphenyl)-7-methyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

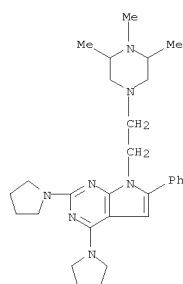


RN 157012-82-3 CAPLUS
CN Phenol, 4-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-6-yl)-6-bis(1-pyrrolidinylmethyl)- (9CI) (CA INDEX NAME)

L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

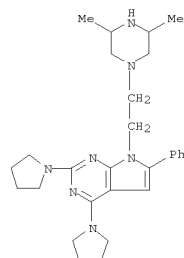


RN 157012-83-4 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 6-phenyl-2,4-di-1-pyrrolidinyl-7-[2-(3,4,5-trimethyl-1-piperazinyl)ethyl]- (9CI) (CA INDEX NAME)

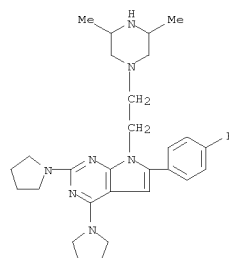


RN 157012-84-5 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-[2-(3,5-dimethyl-1-piperazinyl)ethyl]-6-phenyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



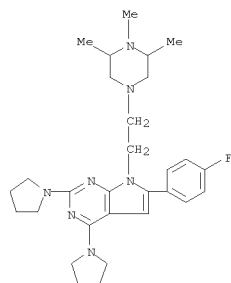
RN 157012-85-6 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-[2-(3,5-dimethyl-1-piperazinyl)ethyl]-6-(4-fluorophenyl)-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)



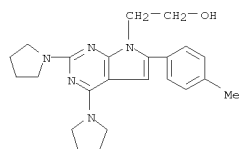
RN 157012-86-7 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-[2-(3,5-dimethyl-1-piperazinyl)ethyl]-6-(4-fluorophenyl)-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

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L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

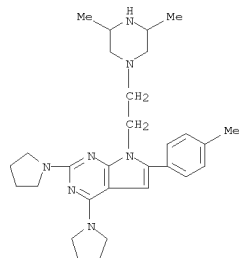


RN 157012-87-8 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine-7-ethanol, 6-(4-methylphenyl)-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

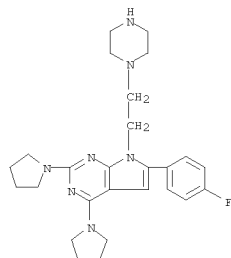


RN 157012-88-9 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 6-(4-methylphenyl)-2,4-di-1-pyrrolidinyl-7-[2-(3,4,5-trimethyl-1-piperazinyl)ethyl]- (9CI) (CA INDEX NAME)

L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

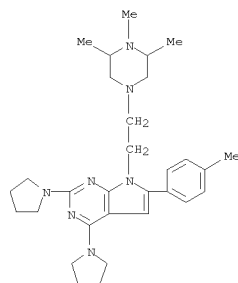


RN 157012-91-4 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 6-(4-fluorophenyl)-7-[2-(1-piperazinyl)ethyl]-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

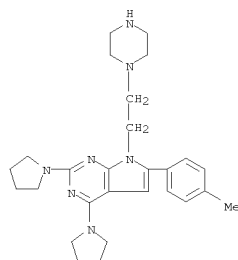


RN 157012-92-5 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 5-methyl-6-(4-methylphenyl)-7-[2-(1-piperazinyl)ethyl]-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

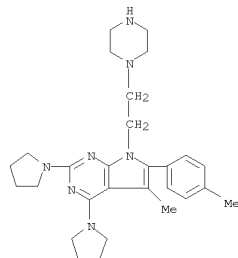


RN 157012-89-0 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 6-(4-methylphenyl)-7-[2-(1-piperazinyl)ethyl]-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

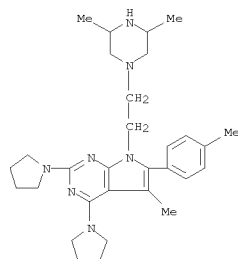


RN 157012-90-3 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-[2-(3,5-dimethyl-1-piperazinyl)ethyl]-6-(4-methylphenyl)-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



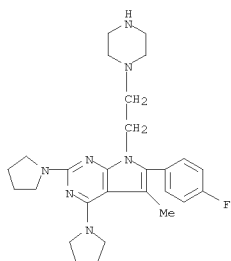
RN 157012-93-6 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-[2-(3,5-dimethyl-1-piperazinyl)ethyl]-5-methyl-6-(4-methylphenyl)-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)



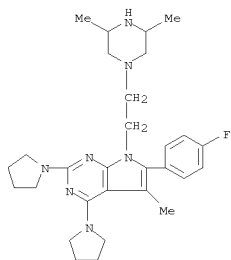
RN 157012-94-7 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 6-(4-fluorophenyl)-5-methyl-7-[2-(1-piperazinyl)ethyl]-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

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L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

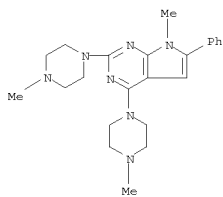


RN 157012-95-8 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine,
7-[2-(3,5-dimethyl-1-piperazinyl)ethyl]-6-(4-
fluorophenyl)-5-methyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

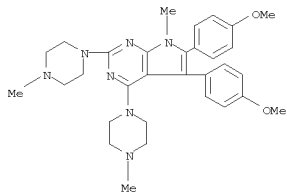


RN 157012-96-9 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine,
6-(4-methoxyphenyl)-7-methyl-2,4-bis(4-methyl-
1-piperazinyl)- (9CI) (CA INDEX NAME)

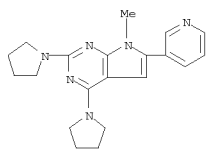
L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 157012-99-2 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 5,6-bis(4-methoxyphenyl)-7-methyl-2,4-bis(4-
methyl-1-piperazinyl)- (9CI) (CA INDEX NAME)

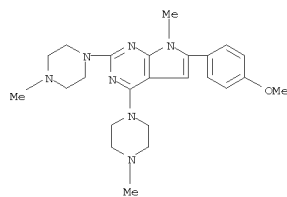


RN 157013-00-8 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-methyl-6-(3-pyridinyl)-2,4-di-1-
pyrrolidinyl- (9CI) (CA INDEX NAME)

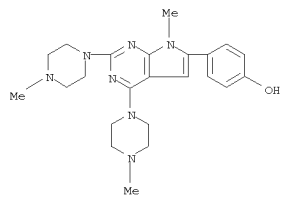


RN 157013-01-9 CAPLUS
CN D-Glucopyranoside, 2-(6-phenyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-
d]pyrimidin-7-yl)ethyl (9CI) (CA INDEX NAME)

L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



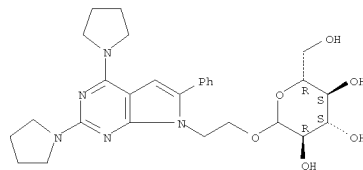
RN 157012-97-0 CAPLUS
CN Phenol, 4-[7-methyl-2,4-bis(4-methyl-1-piperazinyl)-7H-pyrrolo[2,3-
d]pyrimidin-6-yl]- (9CI) (CA INDEX NAME)



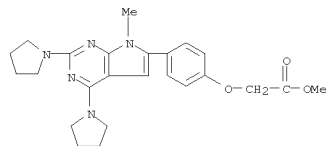
RN 157012-98-1 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-methyl-2,4-bis(4-methyl-1-piperazinyl)-6-
phenyl- (9CI) (CA INDEX NAME)

L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

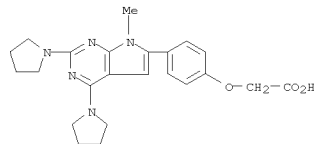
Absolute stereochemistry.



RN 157013-02-0 CAPLUS
CN Acetic acid,
[4-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-
6-yl)phenoxy]-, methyl ester (9CI) (CA INDEX NAME)



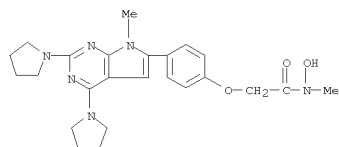
RN 157013-03-1 CAPLUS
CN Acetic acid,
[4-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-
6-yl)phenoxy]- (9CI) (CA INDEX NAME)



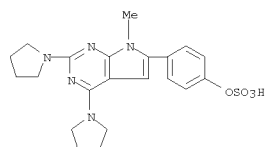
RN 157013-04-2 CAPLUS
CN Acetamide, N-hydroxy-N-methyl-2-[4-(7-methyl-2,4-di-1-pyrrolidinyl-7H-
pyrrolo[2,3-d]pyrimidin-6-yl)phenoxy]- (9CI) (CA INDEX NAME)

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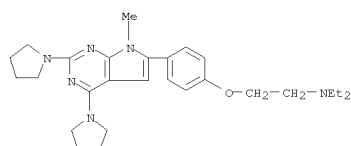
L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 157013-05-3 CAPLUS
CN Phenol,
4-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-6-yl)-
, hydrogen sulfate (ester) (9CI) (CA INDEX NAME)

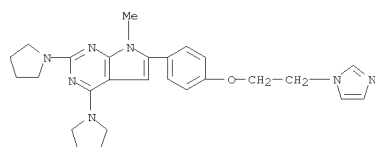


RN 157013-06-4 CAPLUS
CN Ethanamine, N,N-diethyl-2-[4-(7-methyl-2,4-di-1-pyrrolidinyl-7H-
pyrrolo[2,3-d]pyrimidin-6-yl)phenoxy]- (9CI) (CA INDEX NAME)

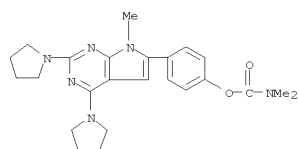


RN 157013-07-5 CAPLUS
CN Sulfamic acid, dimethyl-,
4-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-
d]pyrimidin-6-yl)phenyl ester (9CI) (CA INDEX NAME)

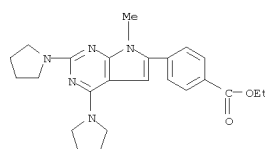
L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 157013-10-0 CAPLUS
CN Carbamic acid, dimethyl-,
4-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-
d]pyrimidin-6-yl)phenyl ester (9CI) (CA INDEX NAME)

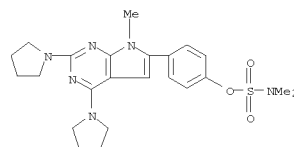


RN 157013-11-1 CAPLUS
CN Benzoic acid,
4-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-
6-yl)-, ethyl ester (9CI) (CA INDEX NAME)



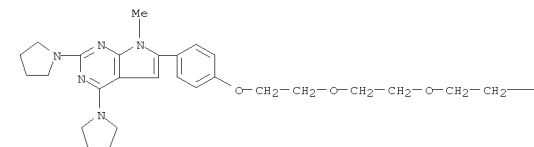
RN 157013-12-2 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 6-(4-bromophenyl)-7-methyl-2,4-di-1-
pyrrolidinyl- (9CI) (CA INDEX NAME)

L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 157013-08-6 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine,
6-[4-[2-[2-(2-methoxyethoxy)ethoxy]ethoxy]phe
nyl]-7-methyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

PAGE 1-A

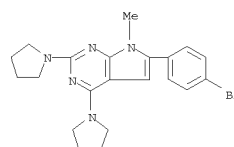


PAGE 1-B

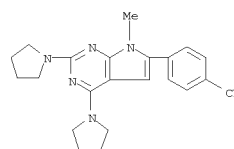
—CMe

RN 157013-09-7 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 6-[4-[2-(1H-imidazol-1-yl)ethoxy]phenyl]-7-
methyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

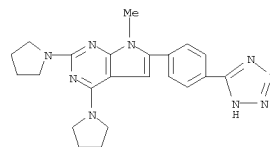
L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 157013-13-3 CAPLUS
CN Benzonitrile,
4-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-
6-yl)- (9CI) (CA INDEX NAME)

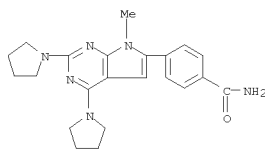


RN 157013-14-4 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-methyl-2,4-di-1-pyrrolidinyl-6-[4-(1H-
tetrazol-5-yl)phenyl]- (9CI) (CA INDEX NAME)

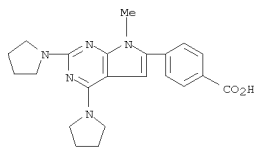


RN 157013-15-5 CAPLUS
CN Benzanide,
4-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-6-
yl)- (9CI) (CA INDEX NAME)

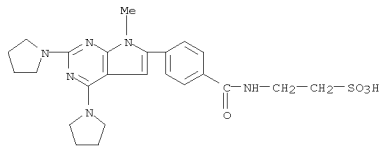
L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 157013-16-6 CAPLUS
 CN Benzoic acid,
 4-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-6-yl)- (9CI) (CA INDEX NAME)

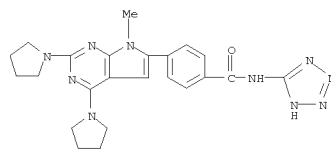


RN 157013-17-7 CAPLUS
 CN Ethanesulfonic acid,
 2-[[4-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-6-yl)benzoyl]amino]- (9CI) (CA INDEX NAME)

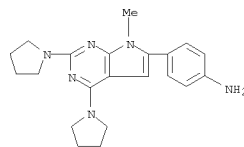


RN 157013-18-8 CAPLUS
 CN Benzanide,
 4-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-6-yl)-N-1H-tetrazol-5-yl- (9CI) (CA INDEX NAME)

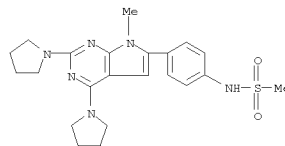
L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 157013-19-9 CAPLUS
 CN Benzenamine,
 4-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-6-yl)- (9CI) (CA INDEX NAME)

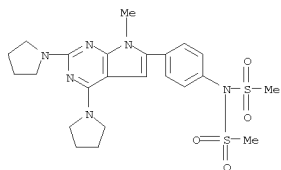


RN 157013-20-2 CAPLUS
 CN Methanesulfonamide, N-[4-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-6-yl)phenyl]- (9CI) (CA INDEX NAME)

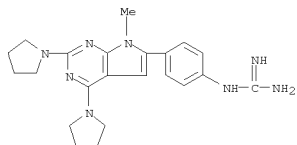


RN 157013-21-3 CAPLUS
 CN Methanesulfonamide, N-[4-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-6-yl)phenyl]-N-(methylsulfonyl)- (9CI) (CA INDEX NAME)

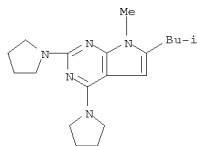
L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 157013-22-4 CAPLUS
 CN Guanidine,
 [4-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-6-yl)phenyl]- (9CI) (CA INDEX NAME)

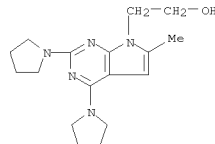


RN 157013-27-9 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-methyl-6-(2-methylpropyl)-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

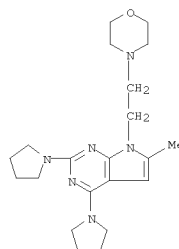


RN 157013-28-0 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine-7-ethanol, 6-methyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

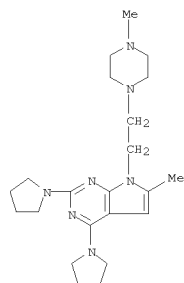


RN 157013-29-1 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine,
 6-methyl-7-[2-(4-morpholinyl)ethyl]-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

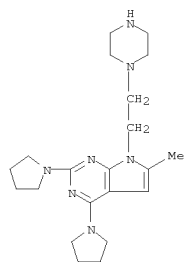


RN 157013-30-4 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine,
 6-methyl-7-[2-(4-methyl-1-piperazinyl)ethyl]-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

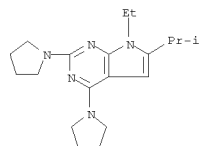


RN 157013-31-5 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine,
 6-methyl-7-[2-(1-piperazinyl)ethyl]-2,4-di-1-
 pyrrolidinyl- (9CI) (CA INDEX NAME)



RN 157013-32-6 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine, 6,7-dimethyl-2,4-di-1-pyrrolidinyl- (9CI)
 (CA INDEX NAME)

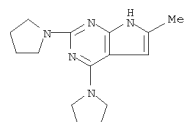
L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 157013-37-1 CAPLUS
 CN 1H-Pyrrolo[2,3-d]pyrimidine, 6-methyl-2,4-di-1-pyrrolidinyl-,
 trifluoroacetate (9CI) (CA INDEX NAME)

CM 1

CRN 157013-36-0
 CMF C15 H21 N5



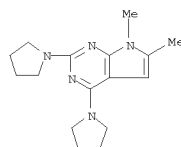
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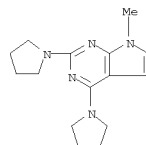


RN 157013-38-2 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-ethyl-6-methyl-2,4-di-1-pyrrolidinyl-
 (9CI) (CA INDEX NAME)

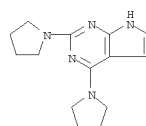
L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 157013-33-7 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-methyl-2,4-di-1-pyrrolidinyl- (9CI) (CA
 INDEX NAME)

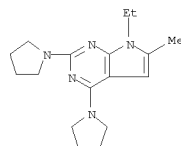


RN 157013-34-8 CAPLUS
 CN 1H-Pyrrolo[2,3-d]pyrimidine, 2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX
 NAME)

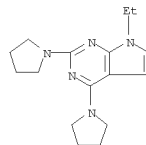


RN 157013-35-9 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-ethyl-6-(1-methylethyl)-2,4-di-1-
 pyrrolidinyl- (9CI) (CA INDEX NAME)

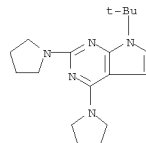
L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 157013-39-3 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-ethyl-2,4-di-1-pyrrolidinyl- (9CI) (CA
 INDEX NAME)



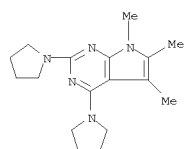
RN 157013-40-6 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-(1,1-dimethylethyl)-2,4-di-1-pyrrolidinyl-
 (9CI) (CA INDEX NAME)



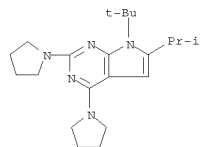
RN 157013-41-7 CAPLUS
 CN 7H-Pyrrolo[2,3-d]pyrimidine, 5,6,7-trimethyl-2,4-di-1-pyrrolidinyl- (9CI)
 (CA INDEX NAME)

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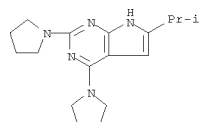
L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 157013-42-8 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-(1,1-dimethylethyl)-6-(1-methylethyl)-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)



RN 157013-43-9 CAPLUS
CN 1H-Pyrrolo[2,3-d]pyrimidine, 6-(1-methylethyl)-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

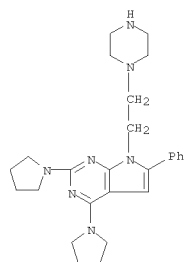


RN 157013-44-0 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 6-cyclopropyl-7-ethyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)

L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
pyrrolidinyl-, (2Z)-2-butenedioate (9CI) (CA INDEX NAME)

CM 1

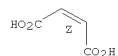
CRN 157012-32-3
CMF C26 H35 N7



CM 2

CRN 110-16-7
CMF C4 H4 O4

Double bond geometry as shown.

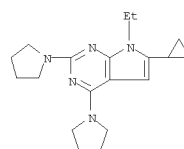


RN 157013-49-5 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-[2-(4-morpholinyl)ethyl]-6-phenyl-2,4-di-1-pyrrolidinyl-, (2Z)-2-butenedioate (9CI) (CA INDEX NAME)

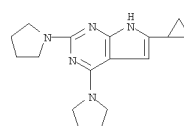
CM 1

CRN 157012-33-4
CMF C26 H34 N6 O

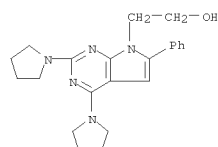
L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 157013-45-1 CAPLUS
CN 1H-Pyrrolo[2,3-d]pyrimidine, 6-cyclopropyl-2,4-di-1-pyrrolidinyl- (9CI) (CA INDEX NAME)



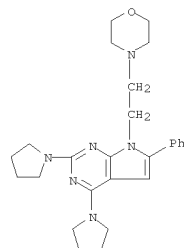
RN 157013-47-3 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine-7-ethanol, 6-phenyl-2,4-di-1-pyrrolidinyl-, hydrochloride (9CI) (CA INDEX NAME)



• x HCl

RN 157013-48-4 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 6-phenyl-2,4-di-1-pyrrolidinyl-, (2Z)-2-butenedioate (9CI) (CA INDEX NAME)

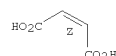
L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



CM 2

CRN 110-16-7
CMF C4 H4 O4

Double bond geometry as shown.



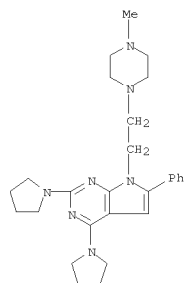
RN 157013-50-8 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-[2-(4-methyl-1-piperazinyl)ethyl]-6-phenyl-2,4-di-1-pyrrolidinyl-, (2Z)-2-butenedioate (9CI) (CA INDEX NAME)

CM 1

CRN 157012-34-5
CMF C27 H37 N7

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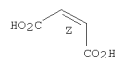
L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



CM 2

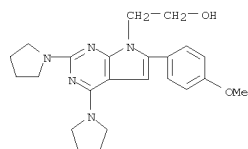
CRN 110-16-7
CMF C4 H4 O4

Double bond geometry as shown.



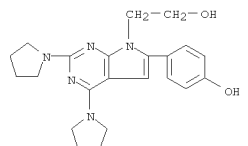
RN 157013-51-9 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine-7-ethanol, 6-(4-methoxyphenyl)-2,4-di-1-pyrrolidinyl-, hydrochloride (9CI) (CA INDEX NAME)

L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



•x HCl

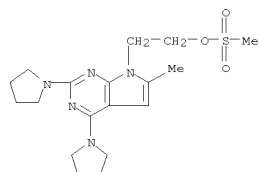
RN 157013-52-0 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine-7-ethanol, 6-(4-hydroxyphenyl)-2,4-di-1-pyrrolidinyl-, hydrochloride (9CI) (CA INDEX NAME)



•x HCl

RN 157013-53-1 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine-7-ethanol, 6-methyl-2,4-di-1-pyrrolidinyl-, methanesulfonate (ester) (9CI) (CA INDEX NAME)

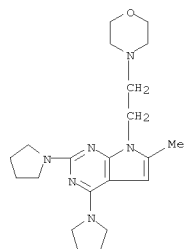
L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 157013-54-2 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 6-methyl-7-[2-(4-morpholinyl)ethyl]-2,4-di-1-pyrrolidinyl-, (Z)-2-butenedioate (9CI) (CA INDEX NAME)

CM 1

CRN 157013-29-1
CMF C21 H32 N6 O

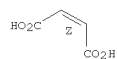


CM 2

CRN 110-16-7
CMF C4 H4 O4

Double bond geometry as shown.

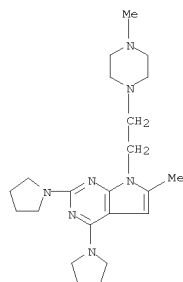
L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 157013-55-3 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 6-methyl-7-[2-(4-methyl-1-piperazinyl)ethyl]-2,4-di-1-pyrrolidinyl-, (Z)-2-butenedioate (9CI) (CA INDEX NAME)

CM 1

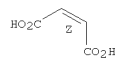
CRN 157013-30-4
CMF C22 H35 N7



CM 2

CRN 110-16-7
CMF C4 H4 O4

Double bond geometry as shown.



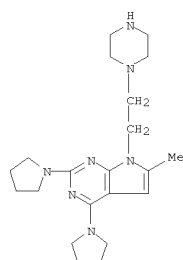
RN 157013-56-4 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 6-methyl-7-[2-(1-piperazinyl)ethyl]-2,4-di-1-pyrrolidinyl-, (Z)-2-butenedioate (9CI) (CA INDEX NAME)

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L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

CM 1

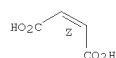
CRN 157013-31-5
CMF C21 H33 N7



CM 2

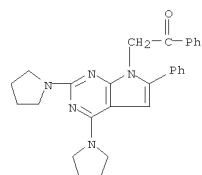
CRN 110-16-7
CMF C4 H4 O4

Double bond geometry as shown.



RN 157013-57-5 CAPLUS
CN Ethanone, 1-phenyl-2-(6-phenyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-7-yl)- (9CI) (CA INDEX NAME)

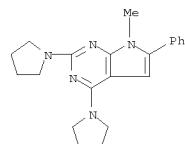
L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 157013-58-6 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-methyl-6-phenyl-2,4-di-1-pyrrolidinyl-, methanesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 157012-18-5
CMF C21 H25 N5



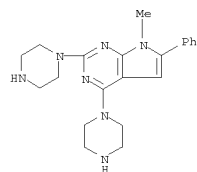
CM 2

CRN 75-75-2
CMF C H4 O3 S



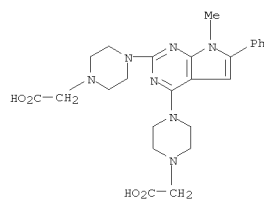
RN 157013-59-7 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-methyl-6-phenyl-2,4-di-1-piperazinyl-, trihydrochloride (9CI) (CA INDEX NAME)

L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



● 3 HCl

RN 157013-60-0 CAPLUS
CN 1-Piperazineacetic acid, 4,4'-(7-methyl-6-phenyl-7H-pyrrolo[2,3-d]pyrimidine-2,4-diyl)bis-, dipotassium salt (9CI) (CA INDEX NAME)



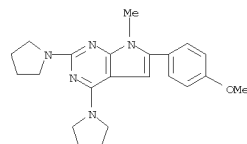
● 2 K

RN 157013-61-1 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 6-(4-methoxyphenyl)-7-methyl-2,4-di-1-pyrrolidinyl-, methanesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 157012-46-9
CMF C22 H27 N5 O

L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



CM 2

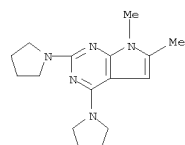
CRN 75-75-2
CMF C H4 O3 S



RN 157013-62-2 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 6,7-dimethyl-2,4-di-1-pyrrolidinyl-, methanesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 157013-32-6
CMF C16 H23 N5



CM 2

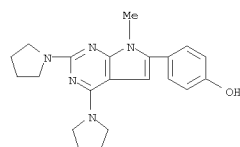
CRN 75-75-2
CMF C H4 O3 S

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L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 157013-63-3 CAPLUS
CN Phenol,
4-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-6-yl)-
, hydrobromide (9CI) (CA INDEX NAME)

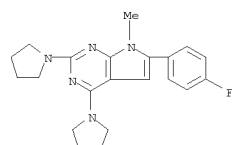


● x HBr

RN 157013-64-4 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 6-(4-fluorophenyl)-7-methyl-2,4-di-1-pyrrolidinyl-, methanesulfonate (9CI) (CA INDEX NAME)

CM 1

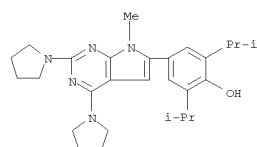
CRN 157012-48-1
CMF C21 H24 F N5



L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

CM 1

CRN 157012-50-5
CMF C27 H37 N5 O



CM 2

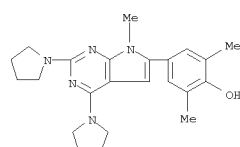
CRN 75-75-2
CMF C H4 O3 S



RN 157013-67-7 CAPLUS
CN Phenol, 2,6-dimethyl-4-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-6-yl)-, monomethanesulfonate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 157012-51-6
CMF C23 H29 N5 O



CM 2

L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

CM 2

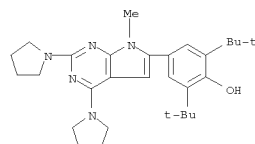
CRN 75-75-2
CMF C H4 O3 S



RN 157013-65-5 CAPLUS
CN Phenol, 2,6-bis(1,1-dimethylethyl)-4-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-6-yl)-, monomethanesulfonate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 157012-49-2
CMF C29 H41 N5 O



CM 2

CRN 75-75-2
CMF C H4 O3 S



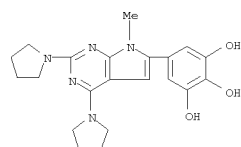
RN 157013-66-6 CAPLUS
CN Phenol,
4-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-6-yl)-
2,6-bis(1-methylethyl)-, monomethanesulfonate (salt) (9CI) (CA INDEX NAME)

L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

CRN 75-75-2
CMF C H4 O3 S



RN 157013-69-8 CAPLUS
CN 1,2,3-Benzenetriol, 5-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-6-yl)-, monohydrobromide (9CI) (CA INDEX NAME)

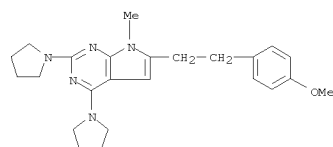


● HBr

RN 157013-69-9 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine,
6-[2-(4-methoxyphenyl)ethyl]-7-methyl-2,4-di-1-pyrrolidinyl-, monomethanesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 157012-53-8
CMF C24 H31 N5 O



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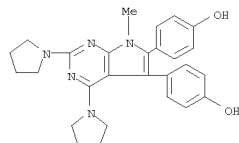
L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

CM 2

CRN 75-75-2
CMF C H4 O3 S



RN 157013-70-2 CAPLUS
CN Phenol, 4,4'-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidine-5,6-diyl)bis-, monohydrobromide (9CI) (CA INDEX NAME)



● HBr

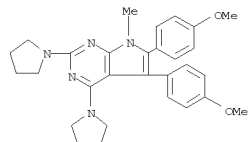
RN 157013-71-3 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 5,6-bis(4-methoxyphenyl)-7-methyl-2,4-di-1-pyrrolidinyl-, monomethanesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 157012-55-0
CMF C29 H33 N5 O2

L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

CRN 157012-55-0
CMF C29 H33 N5 O2



CM 2

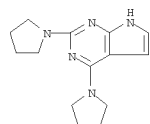
CRN 75-75-2
CMF C H4 O3 S



RN 157013-74-6 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 2,4-di-1-pyrrolidinyl-, monomethanesulfonate (9CI) (CA INDEX NAME)

CM 1

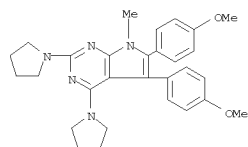
CRN 157013-34-8
CMF C14 H19 N5



CM 2

CRN 75-75-2
CMF C H4 O3 S

L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

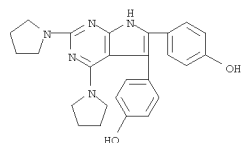


CM 2

CRN 75-75-2
CMF C H4 O3 S



RN 157013-72-4 CAPLUS
CN Phenol, 4,4'-(2,4-di-1-pyrrolidinyl-1H-pyrrolo[2,3-d]pyrimidine-5,6-diyl)bis-, hydrobromide (9CI) (CA INDEX NAME)



●x HBr

RN 157013-73-5 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 5,6-bis(4-methoxyphenyl)-7-methyl-2,4-di-1-pyrrolidinyl-, dimethanesulfonate (9CI) (CA INDEX NAME)

CM 1

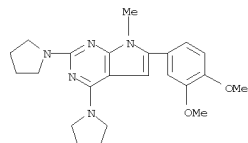
L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 157013-75-7 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 6-(3,4-dimethoxyphenyl)-7-methyl-2,4-di-1-pyrrolidinyl-, monomethanesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 157012-63-0
CMF C23 H29 N5 O2



CM 2

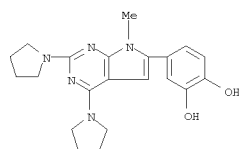
CRN 75-75-2
CMF C H4 O3 S



RN 157013-76-8 CAPLUS
CN 1,2-Benzenediol, 4-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-6-yl)-, monohydrobromide (9CI) (CA INDEX NAME)

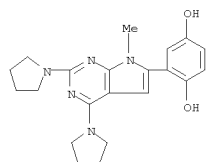
10816329.trn

L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



● HBr

RN 157013-77-9 CAPLUS
CN 1,4-Benzenediol, 2-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-6-yl)-, monohydrobromide (9CI) (CA INDEX NAME)



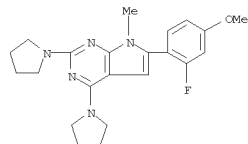
● HBr

RN 157013-78-0 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 6-(2-fluoro-4-methoxyphenyl)-7-methyl-2,4-di-1-pyrrolidinyl-, monomethanesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 157012-67-4
CMP C22 H26 F N5 O

L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

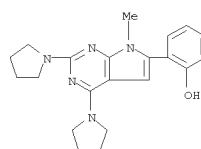


CM 2

CRN 75-75-2
CMP C H4 O3 S



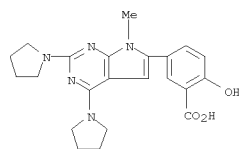
RN 157013-79-1 CAPLUS
CN Phenol, 2-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-6-yl)-, monohydrobromide (9CI) (CA INDEX NAME)



● HBr

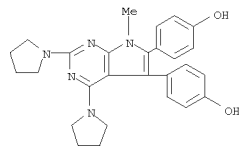
RN 157013-80-4 CAPLUS
CN Benzoic acid, 2-hydroxy-5-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-6-yl)-, monohydrobromide (9CI) (CA INDEX NAME)

L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



● HBr

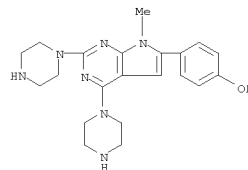
RN 157013-81-5 CAPLUS
CN Phenol, 4,4'-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidine-5,6-diyl)bis-, trihydrobromide (9CI) (CA INDEX NAME)



●3 HBr

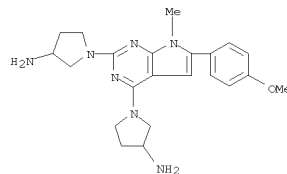
RN 157013-82-6 CAPLUS
CN Phenol, 4-(7-methyl-2,4-di-1-piperazinyl-7H-pyrrolo[2,3-d]pyrimidin-6-yl)-, trihydrobromide (9CI) (CA INDEX NAME)

L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



●3 HBr

RN 157013-83-7 CAPLUS
CN 3-Pyrrolidinamine, 1,1'-[6-(4-methoxyphenyl)-7-methyl-7H-pyrrolo[2,3-d]pyrimidine-2,4-diyl]bis-, trihydrochloride (9CI) (CA INDEX NAME)

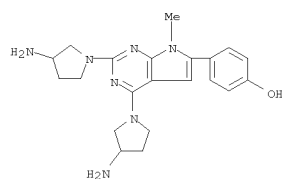


●3 HCl

RN 157013-84-8 CAPLUS
CN Phenol, 4-[2,4-bis(3-amino-1-pyrrolidinyl)-7-methyl-7H-pyrrolo[2,3-d]pyrimidin-6-yl]-, trihydrobromide (9CI) (CA INDEX NAME)

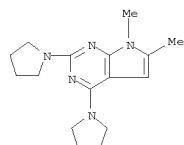
10816329.trn

L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



● 3 HBr

RN 157013-85-9 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 6,7-dimethyl-2,4-di-1-pyrrolidinyl-, monohydrochloride (9CI) (CA INDEX NAME)



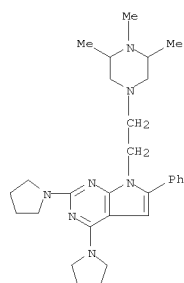
● HCl

RN 157013-86-0 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-ethyl-6-(1-methylethyl)-2,4-di-1-pyrrolidinyl-, sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 157013-35-9
CMF C19 H29 N5

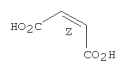
L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



CM 2

CRN 110-16-7
CMF C4 H4 O4

Double bond geometry as shown.

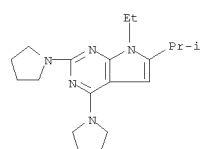


RN 157013-88-2 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-[2-(3,5-dimethyl-1-piperazinyl)ethyl]-6-phenyl-2,4-di-1-pyrrolidinyl-, (2Z)-2-butenedioate (9CI) (CA INDEX NAME)

CM 1

CRN 157012-84-5
CMF C28 H39 N7

L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



CM 2

CRN 7664-93-9
CMF H2 O4 S

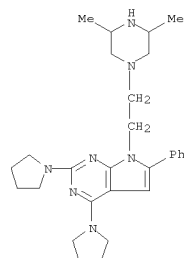


RN 157013-87-1 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 6-phenyl-2,4-di-1-pyrrolidinyl-7-[2-(3,4,5-trimethyl-1-piperazinyl)ethyl]-, (2Z)-2-butenedioate (9CI) (CA INDEX NAME)

CM 1

CRN 157012-83-4
CMF C29 H41 N7

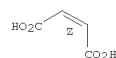
L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



CM 2

CRN 110-16-7
CMF C4 H4 O4

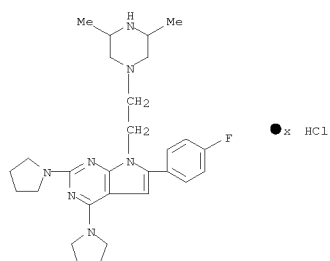
Double bond geometry as shown.



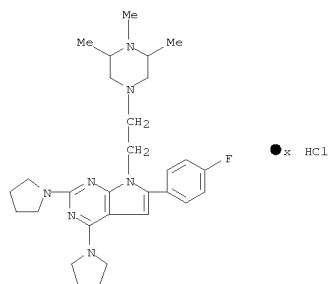
RN 157013-89-3 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-[2-(3,5-dimethyl-1-piperazinyl)ethyl]-6-(4-fluorophenyl)-2,4-di-1-pyrrolidinyl-, hydrochloride (9CI) (CA INDEX NAME)

10816329.trn

L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

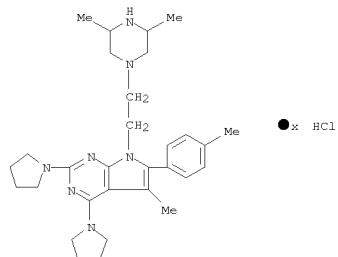


RN 157013-90-6 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine,
6-(4-fluorophenyl)-2,4-di-1-pyrrolidinyl-7-[2-
(3,4,5-trimethyl-1-piperazinyl)ethyl]-, hydrochloride (9CI) (CA INDEX
NAME)

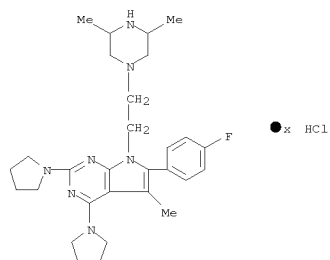


RN 157013-91-7 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine,
6-(4-methylphenyl)-2,4-di-1-pyrrolidinyl-7-[2-
(3,4,5-trimethyl-1-piperazinyl)ethyl]-, hydrochloride (9CI) (CA INDEX
NAME)

L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
methyl-6-(4-methylphenyl)-2,4-di-1-pyrrolidinyl-, hydrochloride (9CI)
(CA INDEX NAME)

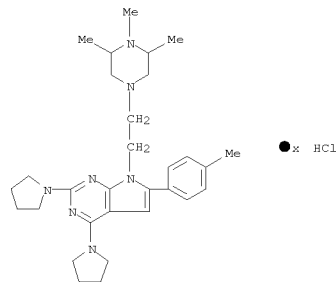


RN 157013-94-0 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine,
7-[2-(3,5-dimethyl-1-piperazinyl)ethyl]-6-(4-
fluorophenyl)-5-methyl-2,4-di-1-pyrrolidinyl-, hydrochloride (9CI) (CA
INDEX NAME)

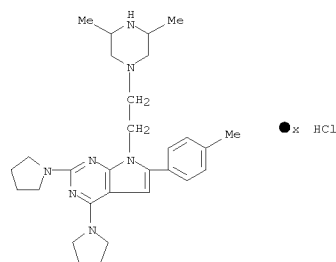


RN 157013-95-1 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine,
6-(4-methoxyphenyl)-7-methyl-2,4-bis(4-methyl-
1-piperazinyl)-, dihydrochloride (9CI) (CA INDEX NAME)

L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
NAME)

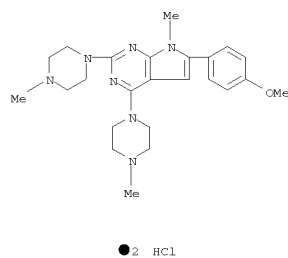


RN 157013-92-8 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine,
7-[2-(3,5-dimethyl-1-piperazinyl)ethyl]-6-(4-
methylphenyl)-2,4-di-1-pyrrolidinyl-, hydrochloride (9CI) (CA INDEX
NAME)

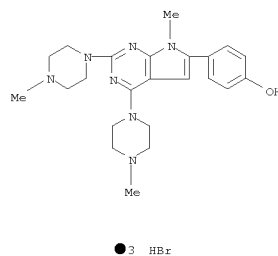


RN 157013-93-9 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-[2-(3,5-dimethyl-1-piperazinyl)ethyl]-5-

L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



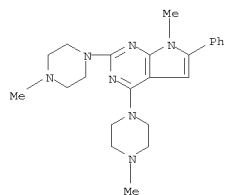
RN 157013-96-2 CAPLUS
CN Phenol, 4-[7-methyl-2,4-bis(4-methyl-1-piperazinyl)-7H-pyrrolo[2,3-
d]pyrimidin-6-yl]-, trihydrobromide (9CI) (CA INDEX NAME)



RN 157013-97-3 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-methyl-2,4-bis(4-methyl-1-piperazinyl)-6-
phenyl-, hydrochloride (9CI) (CA INDEX NAME)

10816329.trn

L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

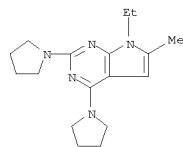


●x HCl

RN 157013-98-4 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-ethyl-6-methyl-2,4-di-1-pyrrolidinyl-, sulfate (9CI) (CA INDEX NAME)

CM 1

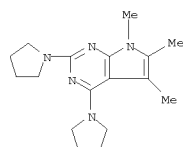
CRN 157013-38-2
CMF C17 H25 N5



CM 2

CRN 7664-93-9
CMF H2 O4 S

L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

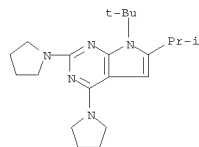


●x HCl

RN 157014-02-3 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-(1,1-dimethylethyl)-6-(1-methylethyl)-2,4-di-1-pyrrolidinyl-, sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 157013-42-8
CMF C21 H33 N5



CM 2

CRN 7664-93-9
CMF H2 O4 S



RN 157014-03-4 CAPLUS
CN 1H-Pyrrolo[2,3-d]pyrimidine, 6-(1-methylethyl)-2,4-di-1-pyrrolidinyl-, sulfate (9CI) (CA INDEX NAME)

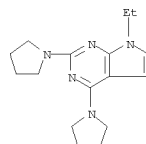
L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 157013-99-5 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 7-ethyl-2,4-di-1-pyrrolidinyl-, sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 157013-39-3
CMF C16 H23 N5



CM 2

CRN 7664-93-9
CMF H2 O4 S

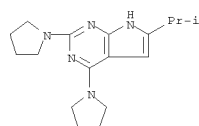


RN 157014-00-1 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 5,6,7-trimethyl-2,4-di-1-pyrrolidinyl-, hydrochloride (9CI) (CA INDEX NAME)

L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

CM 1

CRN 157013-43-9
CMF C17 H25 N5



CM 2

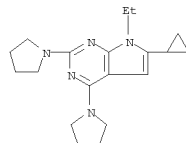
CRN 7664-93-9
CMF H2 O4 S



RN 157014-04-5 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 6-cyclopropyl-7-ethyl-2,4-di-1-pyrrolidinyl-, sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 157013-44-0
CMF C19 H27 N5



CM 2

CRN 7664-93-9

10816329.trn

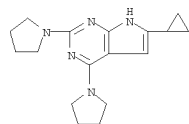
L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
CMF H2 O4 S



RN 157014-05-6 CAPLUS
CN 1H-Pyrrolo[2,3-d]pyrimidine, 6-cyclopropyl-2,4-di-1-pyrrolidinyl-, sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 157013-45-1
CMF C17 H23 N5



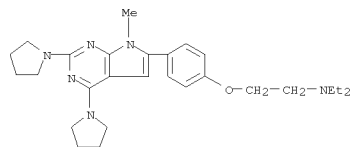
CM 2

CRN 7664-93-9
CMF H2 O4 S



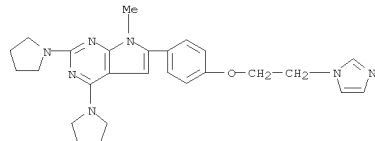
RN 157014-06-7 CAPLUS
CN Acetic acid, [4-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-6-yl)phenoxy]-, monohydrochloride (9CI) (CA INDEX NAME)

L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



● HCl

RN 157014-09-0 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 6-[4-[2-(1H-imidazol-1-yl)ethoxy]phenyl]-7-methyl-2,4-di-1-pyrrolidinyl-, hydrochloride (9CI) (CA INDEX NAME)



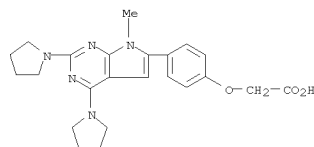
● x HCl

RN 157014-10-3 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 6-(4-bromophenyl)-7-methyl-2,4-di-1-pyrrolidinyl-, methanesulfonate (9CI) (CA INDEX NAME)

CM 1

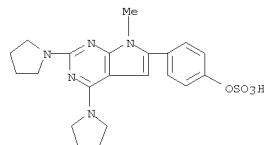
CRN 157013-12-2
CMF C21 H24 Br N5

L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



● HCl

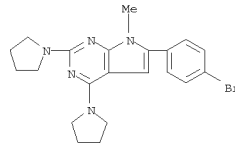
RN 157014-07-8 CAPLUS
CN Phenol, 4-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-6-yl)-, hydrogen sulfate (ester), potassium salt (9CI) (CA INDEX NAME)



● K

RN 157014-08-9 CAPLUS
CN Ethanamine, N,N-diethyl-2-[4-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-6-yl)phenoxy]-, monohydrochloride (9CI) (CA INDEX NAME)

L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

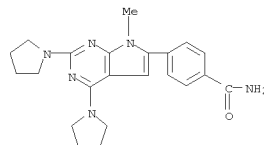


CM 2

CRN 75-75-2
CMF C H4 O3 S



RN 157014-11-4 CAPLUS
CN Benzamide, 4-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-6-yl)-, hydrochloride (9CI) (CA INDEX NAME)

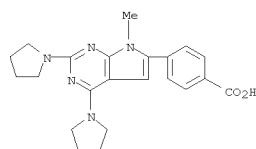


● x HCl

RN 157014-12-5 CAPLUS
CN Benzoic acid, 4-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-6-yl)-, potassium salt (9CI) (CA INDEX NAME)

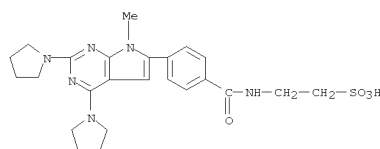
10816329.trn

L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



● K

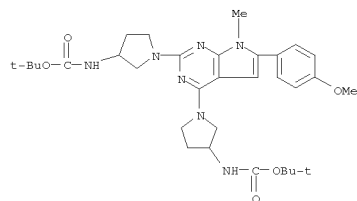
RN 157014-13-6 CAPLUS
CN Ethanesulfonic acid,
2-[[4-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-
d]pyrimidin-6-yl)benzoyl]amino]-, monoammonium salt (9CI) (CA INDEX
NAME)



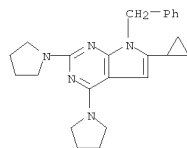
● NH₃

RN 157014-14-7 CAPLUS
CN Benzenamine,
4-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-
6-yl)-, dihydrochloride (9CI) (CA INDEX NAME)

L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)

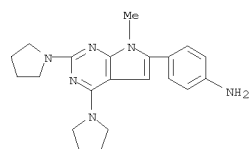


RN 157014-51-2 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 6-cyclopropyl-7-(phenylmethyl)-2,4-di-1-
pyrrolidinyl- (9CI) (CA INDEX NAME)



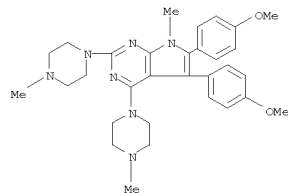
IT 157014-23-8P 157014-38-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as intermediate for pyrrolopyrimidine drug)
RN 157014-23-8 CAPLUS
CN 1-Piperazinecarboxylic acid, 4,4'-(7-methyl-6-phenyl-7H-pyrrolo[2,3-
d]pyrimidine-2,4-diyl)bis-, bis (1,1-dimethylethyl) ester (9CI) (CA INDEX
NAME)

L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



● 2 HCl

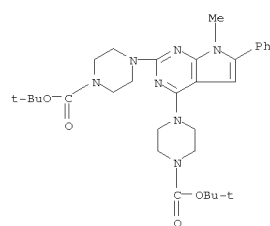
RN 157014-49-8 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine, 5,6-bis(4-methoxyphenyl)-7-methyl-2,4-bis(4-
methyl-1-piperazinyl)-, dihydrochloride (9CI) (CA INDEX NAME)



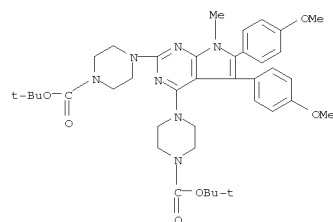
● 2 HCl

IT 157014-47-6P 157014-51-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as drug intermediate)
RN 157014-47-6 CAPLUS
CN Carbamic acid,
[[6-(4-methoxyphenyl)-7-methyl-7H-pyrrolo[2,3-d]pyrimidine-
2,4-diyl]di-1,3-pyrrolidinediyl]bis-, bis (1,1-dimethylethyl) ester (9CI)
(CA INDEX NAME)

L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



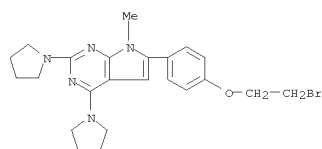
RN 157014-38-5 CAPLUS
CN 1-Piperazinecarboxylic acid, 4,4'-(5,6-bis(4-methoxyphenyl)-7-methyl-7H-
pyrrolo[2,3-d]pyrimidine-2,4-diyl)bis-, bis (1,1-dimethylethyl) ester
(9CI)
(CA INDEX NAME)



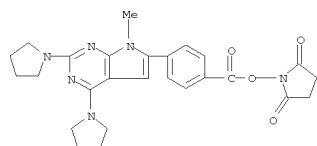
IT 157014-40-9P 157014-42-1P 157014-43-2P
157014-44-3P 157014-45-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, in preparation of pyrrolopyrimidine drug)
RN 157014-40-9 CAPLUS
CN 7H-Pyrrolo[2,3-d]pyrimidine,
6-[4-(2-bromomethoxy)phenyl]-7-methyl-2,4-di-1-
pyrrolidinyl- (9CI) (CA INDEX NAME)

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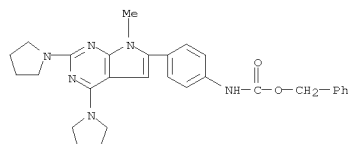
L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 157014-42-1 CAPLUS
CN 2,5-Pyrrolidinedione,
1-[[4-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-
d]pyrimidin-6-yl)benzoyl]oxy]- (9CI) (CA INDEX NAME)

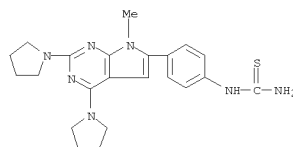


RN 157014-43-2 CAPLUS
CN Carbamic acid, [4-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-
d]pyrimidin-6-yl)phenyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

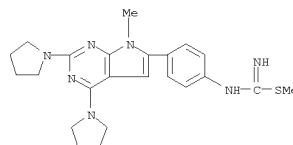


RN 157014-44-3 CAPLUS
CN Thiourea,
[4-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-d]pyrimidin-6-
yl)phenyl]- (9CI) (CA INDEX NAME)

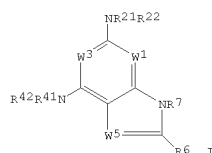
L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)



RN 157014-45-4 CAPLUS
CN Carbamimidothioic acid,
[4-(7-methyl-2,4-di-1-pyrrolidinyl-7H-pyrrolo[2,3-
d]pyrimidin-6-yl)phenyl]-, methyl ester (9CI) (CA INDEX NAME)



GI



AB Title compds. [I; W1, W3 = N, CH; W5 = N, CR5; R5, R6, R7 = H,
(substituted) alkyl, cycloalkyl; R21, R22, R41, R42 = H, alkyl; R21R22N,
R41R42N = (substituted) pyrrolidinyl, piperidinyl, morpholinyl,
piperazinyl, aziridinyl, azetidinyl, imidazolyl, pyrazolyl, triazolyl,
tetrazolyl, thiomorpholinyl, thiazolidinyl, etc.], were prepared for
treating/preventing spinal trauma, head injury, subarachnoid hemorrhage,
stroke, asthma, mucous formation/secretion, muscular dystrophy,
adriamycin

L5 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2007 ACS on STN (Continued)
cardiac toxicity, parkinsonism, Alzheimer's disease, multiple sclerosis,
reperfusion damage, shock, burns, inflammatory disease, atherosclerosis,
emphysema, lupus, cancer, ulcers, colitis, Crohn's disease, myocardial
infarctions, ischemia, migraine, etc. (no data). I may be used similarly
to glucocorticoids for treating the above conditions. Thus,
2,4,6-trichloropyrimidine was stirred with MeNH₂.HCl and (Me₂CH)₂NEt in
THF to give 2,6-dichloro-4-methylaminopyrimidine. This was refluxed with
pyrrolidine to give 4-methylamino-2,6-di-(1-pyrrolidinyl)pyrimidine. The
latter was stirred with α-bromoacetophenone and (Me₂CH)₂NEt in MeCN
to give 6-phenyl-2,4-di-(1-pyrrolidinyl)-7-methyl-7H-pyrrolo[2,3-
d]pyrimidine.

10816329.trn

=>

---Logging off of STN---

=>

Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	171.28	343.59
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-24.18	-24.18

STN INTERNATIONAL LOGOFF AT 16:36:21 ON 22 MAR 2007